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ABSTRACT

This book describes the state of special education for students with mental disabilities in Pakistan and attempts to introduce beginning teachers to special education practice. The general nature and causes of mental disabilities are discussed, including emotional problems, genetic factors, and brain damage. Teaching methods are described, stressing developmental sequences, the importance of play, the need to guarantee appropriate basic services, motivation and reward, and chaining. Principles of communicative development are explored, including speech and sentence structure, word decoding, signs and symbols, and reading and prereading skills. General principles for teaching counting and arithmetic are discussed. Daily living skills are addressed, including feeding, personal hygiene, and the importance of family involvement. General guidelines for teaching art, music, and food preparation are provided, as are principles for education centered around movement, drama, and field trips. Several chapters are devoted to problem behavior and behavior management. Appendices include guidelines for normal development, record keeping, and equipment and a list of approximately 40 useful resources including the addresses of publishers who carry relevant catalogues. (PB)

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SPECIAL EDUCATION FOR MENTALLY HANDICAPPED PUPILS

— A Teaching Manual

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SPECIAL EDUCATION FOR MENTALLY HANDICAPPED PUPILS

- A Teaching Manual

CHRISTINE MILES

Revised Edition

Incorporating

'Speech, Language and Communication
with the Special Child'

Foreword by Professor Peter Mittler

Published by the Mental Health Centre, Peshawar

- 1990 -

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FOREWORD

Professor Peter Mittler

Past President, International League of Societies for Persons with Mental Handicap.

This book comes out of many years of classroom experience of planning and providing for the day to day needs of children with severe learning difficulties. Although the book is based mainly on experience in the North West Frontier Province of Pakistan, the principles and practices that are described are applicable in any country in which schools can be established and in which teachers can be found to apply them.

Christine Miles's basic assumption is now increasingly accepted, namely that all children with learning difficulties can be helped to develop their skills, abilities and personalities, no matter how impaired they seem to be or how limited their level of development. Of course, there must be limits to what can be achieved but the limits lie not only in the child but in our ability to teach. If the child fails to learn or develop, we do not blame the child or the family. Instead, we need to ask how we can modify our approach to match our teaching to the child's unique needs. Special education has no place for formulas and prescriptions. We need to rethink everything we have learned in the light of the child in front of us.

This book provides an excellent guide to practice. It describes mental handicap clearly but without undue simplification and addresses some of the major fears and superstitions surrounding the subject. It demonstrates how children with learning difficulties can be assessed, using simple though detailed developmental checklists and how assessment can be linked to the planning of a realistic teaching programme. The book is particularly helpful in showing how speech, language and communication skills can be taught and used in real life settings. It also addresses the needs of children whose difficult behaviour challenges our ability and willingness to meet their needs. But the positive message of this book is in stark contrast to the realities of day to day provision for children with learning difficulties in many countries where perhaps one handicapped child in a hundred attends a school of any kind. A recent UNESCO survey does suggest that more governments are beginning to accept responsibility for the education of these children and that Ministries of Education (not Health or Social Welfare) are trying to improve provision, often by supporting voluntary organisations rather than by opening state schools to the children.

But what are the prospects of children such as those described in this book being accepted and taught in ordinary schools ? Studies in Pakistan and elsewhere suggest that a surprising number of children with disabilities of various kinds are found in ordinary schools - because they are local children and because their families have simply taken them and they have been accepted. Such 'casual integration' may be commoner than official statistics indicate but it is nothing like enough.

One way forward would be for teachers with the skills and experiences called for in this book to come out of their special schools and support their fellow teachers in ordinary schools in offering integrated education to many more children with learning difficulties. How can this be done ? Teachers with these skills are so scarce that the temptation to concentrate them in one special school is hard to resist. Nevertheless, this model is being followed with increasing success. More special schools are developing links with neighbouring ordinary schools for at least part of each week, with children spending increasing periods of time with their teachers in ordinary classes.

These experiences extend the horizons of teachers and children in both schools, changing attitudes and raising expectations. Sometimes, these contacts lead to an individual child being considered for a full time place in an ordinary school, in the knowledge that professional support and advice are not far away. Another approach is to establish one or more special classes in the ordinary school; these follow their own curriculum but can become the springboard for increasing periods of integration in ordinary classes. Such experiments are then much easier, since support for the child and the teacher are close at hand.

This book shows how the special needs of children with learning difficulties can be met. In order to do this, a 'special curriculum' may be necessary concentrating on the teaching of skills and abilities which other children learn without formal teaching. But integration into an ordinary school involves some degree of access to the curriculum being followed by the rest of the school. Such a curriculum is often centrally prescribed and not necessarily relevant to the needs of children with severe impairments. Special schools in Britain are for the first time confronting the challenge of integrating their existing curriculum and the child's individual educational plan with the new National Curriculum, with its prescribed attainment targets and national assessment arrangements. They are determined to avoid seeing their children excluded and disenfranchised.

How can progress be made towards securing access to education for children with learning difficulties ? One way is through impressive evidence that they can learn, such as is provided in this book.

Another route is through parental insistence on the rights of their children to attend ordinary schools. When parents are brought into a real partnership with teachers, when they are treated with respect and dignity as the experts they are, and when they are given opportunities to help their child to learn, the foundations for community acceptance and integration will have been laid. The real challenge begins once the child has left school.

Centre for Educational Guidance & Special Needs
The University, Manchester

PREFACE TO THE FIRST EDITION

Books on many aspects of Special Education are available in Europe and North America, but very few give a broad and practical base for trainee special teachers. Even fewer have been written in Middle Eastern and Asian countries with local cultural and educational conditions in mind.

The present manual was written by demand of trainee special teachers at the Mental Health Centre, Peshawar. It evolved over seven years, starting in 1978 when I took charge of a small playgroup for handicapped children of Peshawar in the North West Frontier Province of Pakistan. The playgroup staff immediately requested to know "what to do". The next three years' work involved unlearning the approach used in British schools; rethinking it all for Pakistan, in Urdu and Pukhto, in terms of family expectations and social context; relearning it in a fashion appropriate to these circumstances; and communicating it.

Meanwhile the original playgroup developed into a Centre for special education and rehabilitation attended by more than 100 children daily, 45 of them being mentally and multiply handicapped, with ages ranging from 3 to 20 years old. A broad range of disabilities, of severity and of age, was maintained in order to enrich staff experience and training.

The resulting manual has been field tested in weekly seminars and on-the-job instruction with trainees who are now working in eight special schools. Contents will still be largely familiar to Western special teachers and lecturers. Almost all the material and methods are used world-wide in special education. Differences come in the emphasis given to certain aspects, and in the pedagogical approach. Pakistani special teachers have usually come up through a certain sort of education system with its own strengths and weaknesses. They themselves learn in a certain way. They expect material to be presented in a certain way, to help them assimilate it. In practice this has been found to apply equally to graduates and non-graduates.

Some prominent features of modern Western texts on mental retardation, such as independent living, legal rights, intimate relationships, computer-assisted learning techniques etc, are either absent or are treated very differently in the present manual. The social expectations and milieu of our mentally retarded people in Pakistan, the Middle East and South Asia differ radically from those prevailing in Western countries and are likely to develop at a different pace and in other directions. The 'normal patterns of life', in so far as they are identifiable, to a large extent dictate our curricula, and we have no intention of introducing Western preoccupations where they may be inappropriate.

To cover everything that a special teacher of mentally and multiply handicapped pupils should know, would require many volumes. The present manual intends to lay a solid, practical foundation. It presents appropriate material and underlying principles from which teachers and everyone else concerned with special children can go on to imagine and discover for themselves the endless variety of approaches and adapatations to suit the individual requirements of thousands of pupils with special needs.

One of the inspiring factors in working with young Pakistani men and women has been this willingness to try out new ideas in practice. If the manual stimulates an experimental attitude, it will have achieved one of its main aims. Among my happiest memories of training the original Peshawar playgroup staff is the moment when one of the trainees gained enough confidence to differ politely from her teacher and to suggest a different approach for a particular pupil. This Manual will continue to evolve if its readers and users gain similar confidence to *try out the methods, to criticise them, adapt, improve, discuss with colleagues and feed back ideas.*

The Manual has been prepared separately in Urdu and English, with minor modifications due to the different structure of the languages. The level of English used in the main text has been slightly adjusted towards the requirements of those readers for whom it is not their first language; at the cost, in some cases of producing curious hybrids between colloquial usage and standard psychological jargon.

Some attempt has been made to balance the use of 'he' and 'she' in relation to both teachers and pupils, since both genders are well represented in the classroom. The word 'child' has often been replaced by 'pupil', as an indication that the methods described are applicable not merely to children but also to young adults. 'Mental handicap' and 'mental retardation' are used interchangeably.

The methods and approaches described *have not been differentiated according to categories of ability level,* e.g. Mild, Moderate, Severe, Profound, or Educable/Trainable etc, for several reasons: 1) Most of the contents are relevant to all levels from severely handicapped to normally functioning pupils. 2) Trainee teachers should avoid the habit of labelling pupils according to categories of ability, at least until they have several years of teaching experience. 3) There is in any case no standardised and widely accepted practice for categorising mentally handicapped persons in Pakistan. The present Manual emphasizes the accurate observation of each pupil's present functioning level, and programming to move forward to the next appropriate stage in each of the principal areas of skill and development.

At what point can a trainee 'complete the course' and be recognised as a trained special teacher ? In our view there must be *an appropriate balance of theoretical and practical knowledge and competence.* Trainees at the Mental Health Centre have worked through the present manual in seminars and discussions, and were supervised while they put theory into practice during a period of two years, attaining a level of competence ranging from reasonable to excellent. They were then given certificates of qualification as Special Teachers of Mentally and Multiply Handicapped Children. Trainees from other organisations have come for periods of three or four months only, and have received certificates stating that they completed an Introductory Course.

Clearly, the manual contents could be assimilated in a comparatively short time, but to achieve real *classroom competence* it is essential that trainees should be supervised and guided during practical teaching work over an extended period. They should have both *intensive experience* with 10/15 pupils, and a *broader contact* with a larger number of mentally and multi-handicapped pupils and their families.

January 1986 Christine Miles
Peshawar

PREFACE TO THE REVISED EDITION

This revised edition contains up-to-date material on Speech, Language and Communication (already published in a separate booklet). It includes more information on Cerebral Palsy and on Daily Living Skills. A detailed Skills Chart is given. Much of the material has been rephrased in line with modern thinking and to make the meaning clearer.

We have gratefully received feedback and suggestions from users of the manual in 80 countries with very different levels of educational organisation. We have tried to use all the ideas received, but it seems that a truly international 'World Manual' on special education for mentally handicapped pupils can hardly be written. The diversity of concepts and of attitudes towards mental handicap, childhood development and learning is too great to be covered in one basic manual. The degree of learning disability for which people use the term 'mental handicap', and the response of teachers in mainstream schools to children who cannot maintain an average rate of progress in the standard curriculum, differ from one situation to another even within the same country, let alone throughout the world.

So we continue, in this revision, to refer to Pakistan and to illustrate some Asian viewpoints. Readers in other parts of the world are requested to make any cultural and conceptual adjustments they feel necessary. It is our hope that this manual will be an inspiration, not a rule-book.

The first edition was written with Pakistani special teachers in mind. It has also been used successfully by parents, health workers, therapists, normal teachers and classroom aides, in *Asian, African, Caribbean and South Amerian countries*. As Peter Mittler notes in his Foreword, there are ever-growing opportunities for the education of children with special needs in ordinary schools and their integration in normal social life. This revised manual goes out with the hope of assisting all the newcomers to the field, as well as those for whom it was first written.

February 1990 Christine Miles & Mike Miles
Peshawar and Bradford

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To all Pupils, Parents and Staff of the Mental Health Centre, especially Farhat Parveen and Oliver Cromwell Caleb who insisted on learning 'what to do' and who went on to become staff trainers themselves; to our advisors Prof. M. Shafique and Prof. M. Imran, and to Hidayatullah Khan of the Frontier Association for the Mentally Handicapped; to Lyssa Morley, Chrisse Marttinen, Lorna Anderson and David Werner for many lively and inspiring illustrations; to Sonia Iskov for photographs that reveal human relationships; to Margie Kulsoom, David Werner, Rafiq Jaffer, Yvonne Frizzell, Judith Coupe, Juliet Goldbart, Helmut Sell, for professional advice and encouragement.

To Razia Jaffer, Simin Masud, Farhat Rehman, Mahajabeen Agha, Ashutosh Pandit, Susanne Behrend, Ken and Sue Finn, Nuri Gally, who were involved with translation into various languages; to Kirsten Gammelgaard and Avril Cooper Caleb for coping with my dreadful handwriting in early drafts; to others in many countries who sent in comments and encouragement; to Roy McConkey and Penny Price whose book 'Let's Talk' inspired some of my material on language use, and Mary Sheridan whose child development observations are fundamental to our field.

To Peter Mittler for his warm enthusiasm, vigorous professional debates and generous Foreword.

And to Mike Miles for believing in this manual in the first place and for revising, clarifying, arguing, editing, rewriting, indexing, typing, designing, pasting-up, corresponding, fund-raising and publishing both the first and the revised editions. He claims to have found it all sufficiently interesting.

Christine Miles

1.0 WHAT IS MENTAL HANDICAP ?

1.1 NOT SO DIFFERENT

The most important thing about a mentally handicapped person is that he or she is a person with very much in common with all of us.

Some people are cleverer than others. Only a few people can win prizes for science. A few people can write great books or poems, but most of us cannot do so. Some of us are better at mechanical work and others are better at book-learning. People with mental handicap are less clever than the rest of us. Even so, a few mentally handicapped persons have written stories and poetry and have painted beautiful pictures and shown other surprising abilities.

A normal child learns many skills and develops his abilities very quickly during the first few years of his life. A child with mental handicap is one whose learning and development has been delayed or slowed down for one reason or another.

Mental handicap is a delay or slowness in mental development.
Mental handicap is also known as *mental retardation*. In this book, either term is used to mean the same condition. In other countries, the same condition may be called *mental deficiency or mental subnormality, intellectual impairment, disability or handicap.* Learning difficulty or disability is often used - these terms are preferred by some parents and are more easily understood.

Charts have been made, which show details of how children develop and what is their normal behaviour. These charts also give the age at which different skills usually appear (Appendix I). Some mentally handicapped children are delayed in all parts of their development (controlling movement, speech, the understanding of language, recognising pictures, and so on). Some children are delayed in only one or two parts of their development.

Looking at other sorts of disability, the development of a *blind child* is delayed in skills that need sight, but the child may develop normally in all other ways. After training, he can overcome many of his problems, can move around freely and do some of the jobs for which other people use their sight. The *physically disabled child* is delayed in her movements, but if she goes to school she can study as well as any other child. The child who is *deaf* needs help to overcome difficulties with speech and communication.

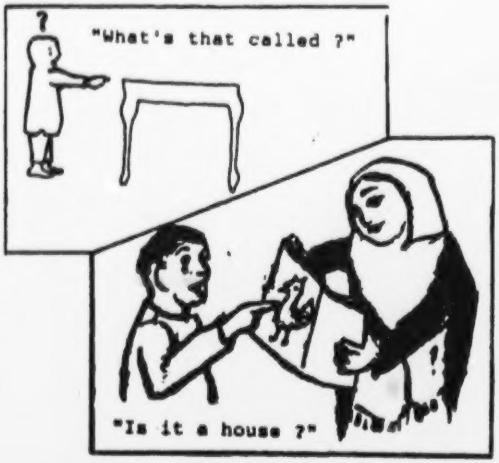
In the same way, children who are delayed in only one or two parts of their mental development may, with help, develop normally in most ways. But many children are delayed in all aspects of development. Teachers and others who work with mentally retarded children need often to remember that these children have very much in common with all other children.

1.2 SPECIFIC LEARNING DIFFICULTIES

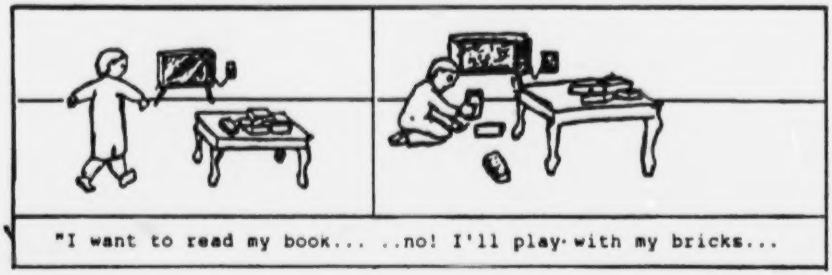
Mental handicap may be linked with one "specific learning difficulty", where only one part of mental development is delayed. But this one part may affect the development of other skills which depend on it. *Memory defects* and *perceptual problems* are common "specific learning difficulties".

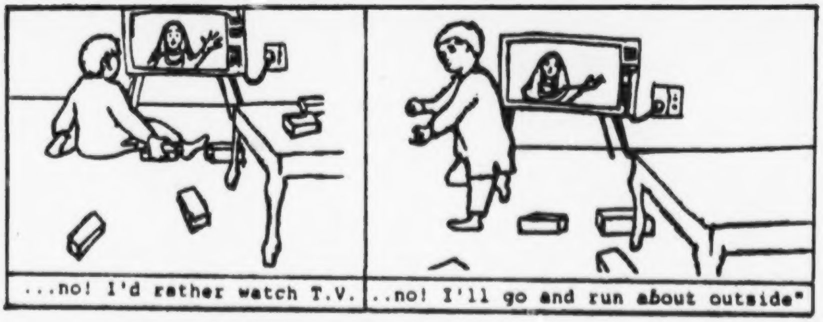
* *Memory difficulties:* these may, for example, mean difficulty in remembering words that the child has heard, with the result that the child is unable to speak sensibly.

* *Perceptual problems:* where a child is unable to recognise or copy *shapes* (problem of visual perception); or finds it hard to recognise or copy *sounds* (problem of auditory perception).


?
"What's that called ?"
"Is it a house ?"

* *Hyperactivity:* This is another special problem making it hard for the child to learn. He does not pay attention, so is not able to concentrate on anything for more than a few minutes at a time.


"I want to read my book... ..no! I'll play with my bricks...



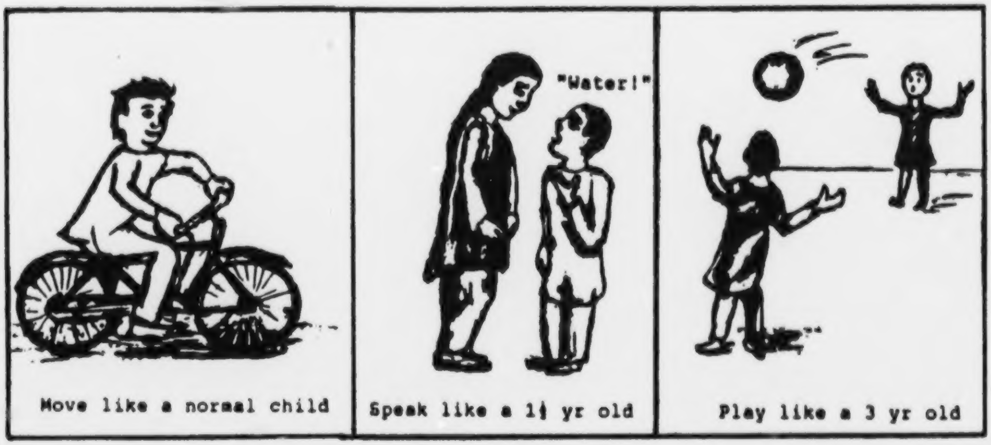
...no! I'd rather watch T.V. | ..no! I'll go and run about outside"

Any child who has learning problems should be given a careful medical examination by a doctor. Special attention should be given to *eyes and ears* if it seems possible that there may be a visual or hearing problem.

Many children with a *specific learning difficulty* may be helped to overcome their problem and will be able to enter normal education. These children should not then be described as *mentally handicapped or retarded.* However, many others will continue to attend special schools for handicapped children.

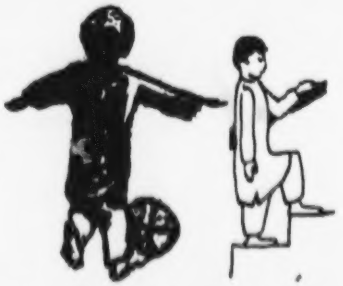
1.3 UNEQUAL DELAY

Even if a child's development is delayed in all areas, she is not likely to be *equally* delayed in all areas. For example, a 10 year old mentally handicapped child might be able:-

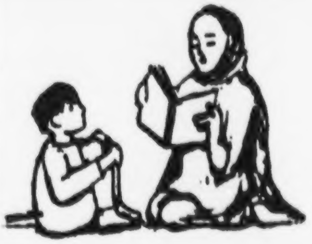


Move like a normal child | Speak like a 1½ yr old | Play like a 3 yr old

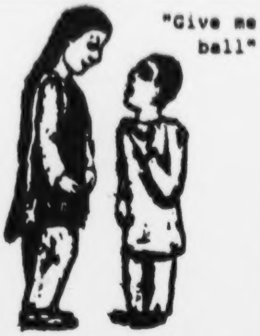
Another mentally handicapped child aged 10 may be able to:-



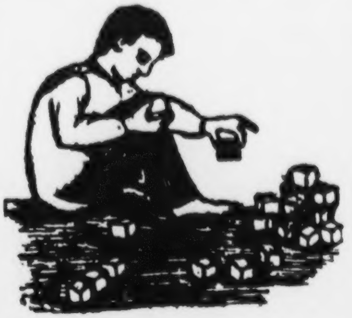
Move like a 2 year old :
(Walk into ball when trying to kick it; hold on to wall when walking up and down stairs, putting both feet on each step).



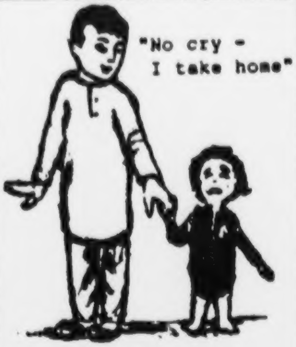
Listen to long stories with interest - like a 4 year old.



Speak like a 2½ yr old



Sort colours like a 4 yr old


"No cry - I take home"

Look after younger children like a 5 yr old

Because of this each child should have an individual teaching program made for his or her own needs and ability.

1.4 EMOTIONAL PROBLEMS

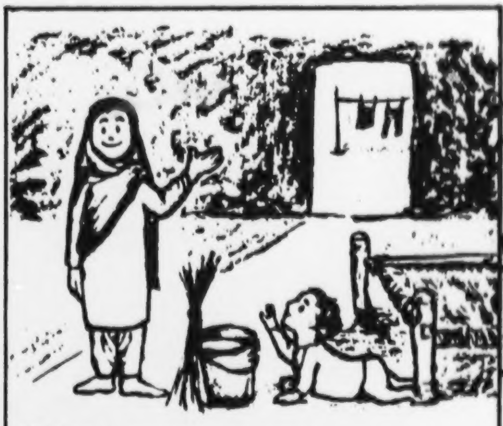
When she first comes to a special school, the mentally retarded child is quite likely to have emotional problems which stop her from doing as well as she could do. These may result in problem behaviour, or unwillingness to take part in activities or to try new activities. These emotional problems may result from stress at home, where the mother may feel unable to cope with the child. The child may feel herself to be a failure.

If a child is over-protected at home, he may feel afraid when he comes to school, because he is in a strange place among people he does not know. These problems will be discussed later. When the child develops a close and loving relationship with the teacher, emotional problems may be overcome within a few months. The child may then make quite quick progress in all areas of learning and development.

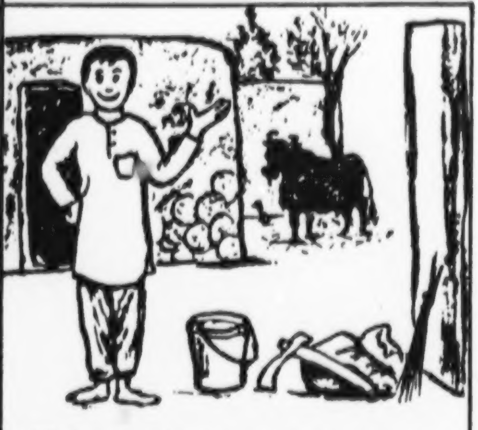
1.5 NO CLEAR LINE

Mental handicap is *not a condition that can be cured.* Yet it is possible that a child who is *now* thought of as mentally handicapped may *later* in her life not be thought of in this way. If an adult person is described as mentally handicapped it means that he is both less clever than a normal person and that he does not do the normal things expected by society. If a person has *learnt* to do the normal things expected by society, he may no longer be described as mentally handicapped.

Normal activities vary from one social group to another. A young adult who has the skills normally learnt by a 7 year old child, and whose family are friendly and helpful, may seem normal enough if he is a farm worker or labourer or she is the house-wife in a simple home.

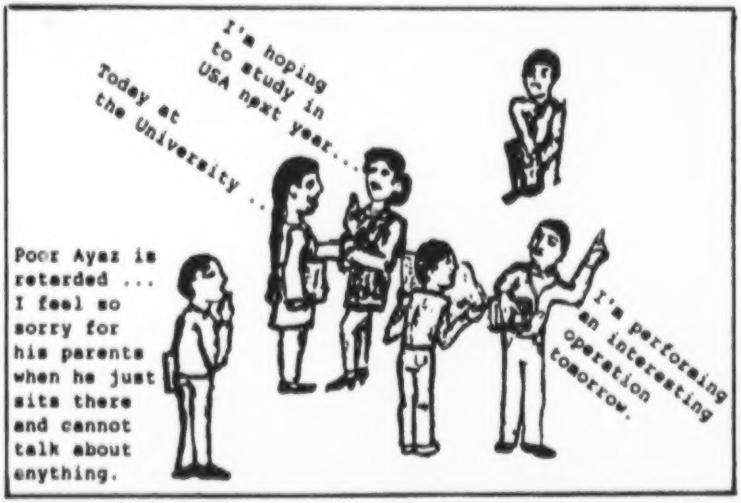


"Today I washed the clothes and cleaned the floor. The rest of the time I was minding my sister's baby."



"Today I milked the buffalo and dug in the field. Then I helped my brother repair the door. I can't mend things by myself."

But a young adult with a mental development of 12 years will be thought of as retarded if all his family and social circle are highly educated professional people.


I'm hoping to study in USA next year...
Today at the University..
Poor Ayaz is retarded ... I feel so sorry for his parents when he just sits there and cannot talk about anything.
I'm performing an interesting operation tomorrow.

* *This shows that there is no clear dividing line between mentally handicapped and "normal" people.*

Some people are a little less clever than average, some are very much less clever, and there is every possible stage in between. Many mentally handicapped people need *just a little help* to lead normal lives. There are others who will need *a lot of help* at every stage through their lives.

1.6 MENTAL ILLNESS IS DIFFERENT

Many people confuse *mental retardation or mental handicap* with *mental illness.* Mental illness is a quite different condition. A person who is mentally ill may have normal or high intelligence and may even be very well educated. But as a result of unhappy experiences, or because of some physical illness that affects the brain, his or her behaviour becomes strange, even though he/she *knows* how to behave normally.

When a mentally retarded person behaves in a strange way it is usually because he has not learnt the correct way to behave. The mentally *retarded* person needs to be taught how to behave normally. The mentally *ill* person needs help from a psychiatrist to overcome his illness and so to return to normal everyday life and behaviour.

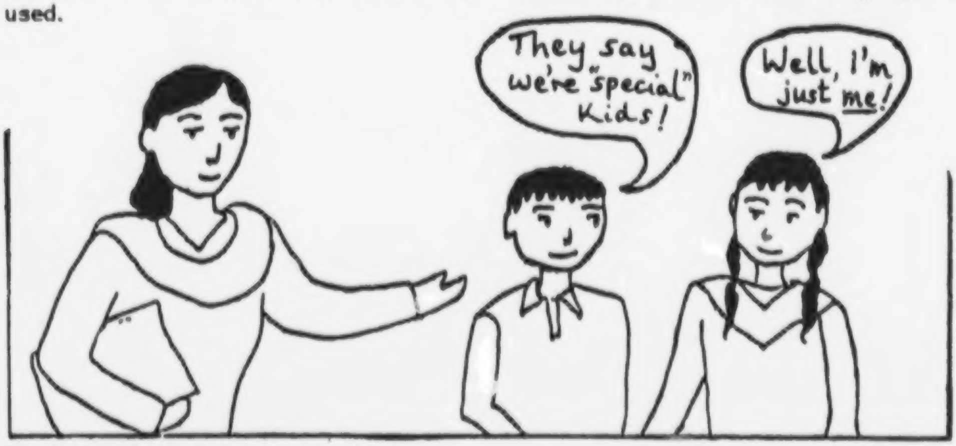
1.7 WHAT SHOULD IT BE CALLED ?

Because of the common confusion between mental illness and mental retardation or handicap, people in some countries have tried to find a different name for mental retardation. Some of them say that *intellectual impairment*, or *intellectual disability* or *intellectual handicap* are better words, to avoid the confusion of using mental in both mental illness and mental retardation. Yet there is a problem in using the word intellectual. It is not a commonly used word. Some people use it to describe *a very clever person*. Some organisations, for different reasons, use *mental disability* to cover both mental illness and mental retardation.

In every language, words are needed to talk about mental handicap. Words should not be confusing nor likely to reduce the dignity of the person with mental handicap. In most languages, there are several words for mental illness and for mental handicap. As time passes, words change their meaning: we do not now use words like *idiot*, *imbecile*, *moron*, *subnormal*, when talking about people with mental handicap, because those words now have an insulting tone. In the same way, the person with mental illness should not be called a *madman* or *lunatic*.

The words *mental handicap* and *mental retardation* are used in English now to talk about a particular condition, without giving any insult. That is why we use them in this book. Yet in some languages the word 'mental' may be used with an unpleasant meaning, which is worrying to parents. It is often better to use 'learning difficulty' or 'learning disability' which many parents can understand and can accept more easily.

The teacher, and other people who work with mentally handicapped children or adults, should choose with care the words she uses, when talking to parents or to anyone else about mental handicap, in whichever language is used.


They say we're "special" Kids!
Well, I'm just me!

2.0 CAUSES OF MENTAL HANDICAP

2.1 HANDLE WITH CARE !

The teacher's job is to make sure that pupils learn. *It is not the job of the teacher to find out the causes of a particular child's handicap.* Yet the teacher needs to know something about causes, because many parents have mistaken ideas and blame themselves without good reason. The teacher should not ask probing questions about cause. Take care not to make parents feel that they are blamed. The teacher may think that there is a risk of another impaired child being born into a particular family. In that case, the question should be talked over between that family and a specialist doctor.

Causes of mental handicap fall into two main groups : brain damage and abnormal genetic conditions. "Lack of stimulation" is a further cause or group of causes.

2.2 BRAIN DAMAGE

Brain damage can be caused by something that goes wrong before the child's birth, at the time of birth, or later.

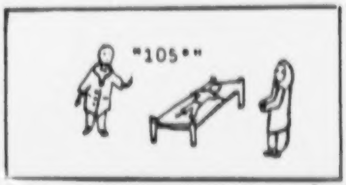
- *At birth* the common causes of damage are lack of oxygen (which may be a result of very long labour) or too much pressure on the baby's head.

- *Before birth* the baby can be harmed by infections. For example, rubella ('German Measles') is a mild illness for the mother, but if she gets it in the first three months of pregnancy it may cause the baby to be born blind, deaf or mentally retarded. Even milder infections, which the mother may not know that she has, can sometimes harm the baby's brain. Congenital syphilis may result in mental handicap - some physical features may also go with this condition making it recognisable. Teachers should beware of talking about syphilis with families, as they will certainly be offended.

Drugs taken by the mother may harm the expected baby; also X-rays taken during some of the months of pregnancy. Smoking and drinking alcohol in pregnancy may result in smaller, weaker babies who are more likely to become sick or be brain damaged.

- *After the child is born,* there are many possible causes of brain damage.

• High temperature (fever) can cause brain damage.



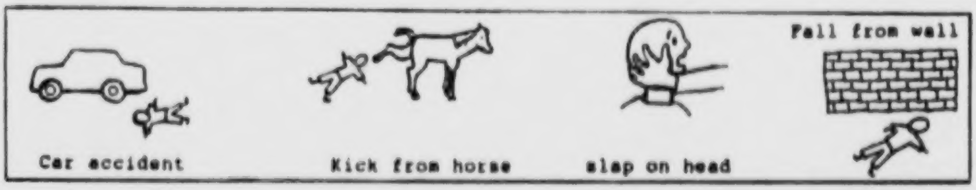
- Low body temperature can lead to brain damage. It may happen if the baby becomes very cold when not clothed warmly enough in winter, or being left in a cold bath.

"The baby got terribly cold when he was outside without a blanket."

- Jaundice is another cause, either from infection or from difference in type of parents' blood. If it is known that a husband's blood group is positive and his wife's blood group is negative, they should consult their doctor as soon as possible. It may be possible to arrange treatment that will avoid harm to any future baby they may have.

- Encephalitis - brain infection: a number of illnesses can infect the brain, such as measles, some sorts of flu, etc.

- Injury: a blow on the head causing brain damage may result from many situations:



- Malnutrition: brain damage can result from not getting enough food in early childhood. In some mountain areas, children may suffer from a lack of iodine in their food. This produces a severe disability called Cretinism - the child has dry skin, little hair and is small in size as well as being retarded. Cretinism can be treated, especially if it is recognised soon after birth.

- Drugs - (medicinal or other) - an overdose of drugs may also cause brain damage.

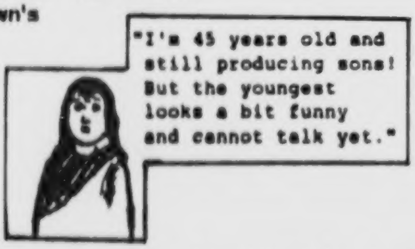
- Poisoning by pollutants, e.g. lead poisoning may arise from living in a house where there are fumes from motor vehicles, or from lead water-piping, or from lead paint, or from some sorts of cosmetic make-up (*surma*).

All the causes listed above are known to produce brain damage. Those of us who are not doctors should not be concerned to identify the causes of a particular child's brain injury. Even in countries where every case is carefully studied, the cause remains unknown in a large number of cases.

2.3 GENETIC CAUSES OF MENTAL HANDICAP

Some babies are impaired because of a defect in the mechanism of inheritance from parents. This is a *genetic cause.*

A common type of mental handicap with a *genetic cause* is Down's Syndrome (mongolism). Down's syndrome is not hereditary in the sense of 'running in families'. It results from an abnormality in genetic material - the baby has an extra *chromosome* in each cell (see explanation in Appendix IV). Down's Syndrome is much more likely to occur in children of mothers over 35 years old. In Britain one child in 10,000 of those born to mothers under 25 years old has Down's syndrome. But one child in 50 of those born to mothers over 40 years old has this syndrome. Numbers like this may be expected anywhere in the world.

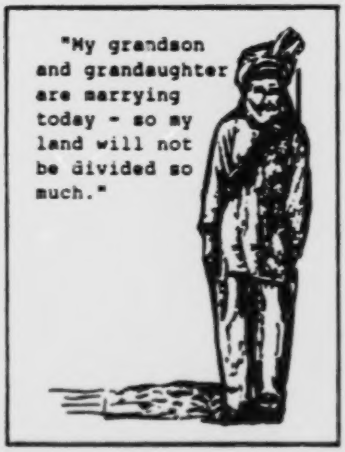

"I'm 45 years old and still producing sons! But the youngest looks a bit funny and cannot talk yet."

Down's Syndrome is usually easy to recognise. People with this condition have slanting eyes, flat noses, mouths often open, tongues sometimes hanging out. They are usually friendly and outgoing and they enjoy entertaining others, especially by imitating people. The development of their speech is often delayed, with spoken language well behind language comprehension. They often suffer chest infections and catarrh, which may cause problems with hearing. The teacher should remember that if a Down's pupil has a cold, she may not be able to hear properly, but the child's hearing should get better when the cold has cleared.

There are hundreds of other known genetic abnormalities, but they are all very rare. We are not likely to meet many of these conditions. Genetic abnormalities often result in odd physical conditions such as small head, extra fingers or very short body. These conditions happen when the material of heredity (called a *gene*) is altered by chance. For some of these conditions, the same abnormal gene must come from both parents before the child himself will be affected. Some rare genetic conditions affect the way the body works, e.g. phenylketonuria. If diagnosed by a blood test at birth, the baby can immediately be given a special diet, so preventing brain damage.

In Western countries there is scientific evidence that the average (normal) person carries several abnormal genes. The chances of a person with an abnormal gene marrying someone with the same abnormal gene are very small in Western countries - for the most common abnormal genes, it is a chance of about 1 in 100,000.

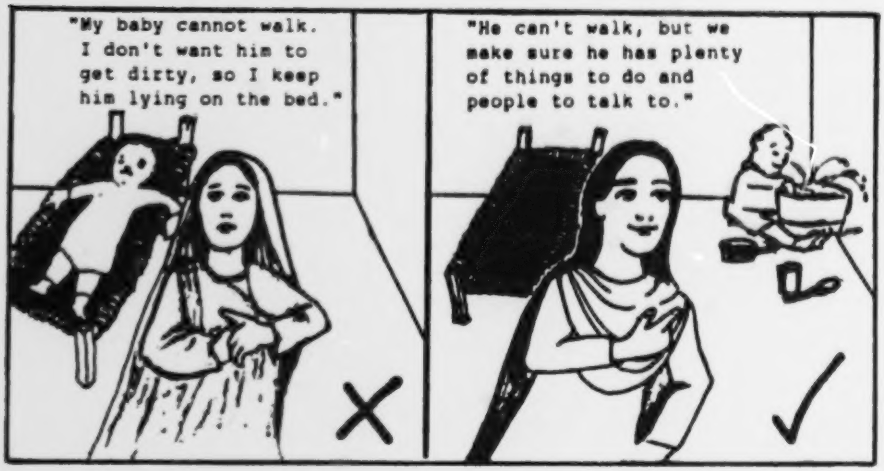
The situation is different in Pakistan and many other countries. An abnormal gene may happen in a person's hereditary structure by chance, without that person being affected. This gene is then passed on to his children and his grandchildren. If these grandchildren follow a local custom of marrying a *cousin*, then it is much more likely that the cousin has the same abnormal gene. Then *some* of their children will inherit the same abnormal gene from both their parents, which may result in them being born with a disability (see Appendix IV). Genetically, a maternal cousin relationship is as close as a paternal cousin relationship.


"My grandson and granddaughter are marrying today - so my land will not be divided so much."

2.4 NOT ENOUGH STIMULATION

A third group of causes of mental handicap is when a child is *under-stimulated*. If a normal baby were to grow up in a dark, silent room with nothing interesting for her hands to touch and no contact with other people, she would learn:- *nothing* ! Very few children grow up in such a limited way. But the child who gets very little attention from other people, who stays always in one room or on one bed or chair and has nothing interesting to do or explore, will learn much less than she might have done if she had more stimulation.

If the child is put in a more interesting place and is helped to start doing things and exploring, as a baby normally does, she will make rapid progress. The younger she is when this program of stimulation begins, the greater is the chance of reaching a near-normal level. Some children with physical disabilities come into this category - they behave as though they are mentally retarded through lack of stimulation - because the parents (wanting to protect the child) keep them lying on a bed with nothing to do and no demands on their mental abilities.


"My baby cannot walk. I don't want him to get dirty, so I keep him lying on the bed."
"He can't walk, but we make sure he has plenty of things to do and people to talk to."
✗
✓

2.5 WAYS TO THINK ABOUT CAUSES

There are many false ideas about causes of mental handicap. Some people blame *evil spirits*, or believe that the handicap is a *punishment for sin*. We should try to avoid those ideas. Most important, we should help parents not to blame themselves nor feel guilty. Instead, they should *think about the future:* how to help their child to learn as much as possible.

The causes listed, apart from malnutrition (especially iodine deficiency if treatment is begun while the child is very young), result in conditions that *cannot be cured medically*. Parents will already have taken their child to doctors and have heard that she cannot be cured. Although the medical condition will remain the same, we must help families to understand that the child is able to learn and develop and so to have a more normal life. The child has a *medical condition*, i.e. a condition known to medical science. That is not the same as an *illness*.

Usually the child does not have any *illness*. Her development is slowed down, but with proper stimulation it can be helped forward and she will learn. Her *educational condition* can be treated - and it is the teacher's job to do so, together with the family.

• *Prevention*. Most of the causes result in conditions that are *incurable*, but many of the causes can be avoided by taking care and thought. For example, the woman who is expecting a baby should be very careful of any drugs she takes. Parents should try to avoid any blow or fall or untreated fever that might damage the baby's brain. Families should think carefully before arranging marriages between cousins. The teacher should not interfere in the private lives of her pupils' families, but if she gets to know them and they want to talk to her about causes and prevention, then she should be able to give sensible advice. If the teacher has first won their confidence by teaching their child with love and understanding, a family will be much more likely to listen to her advice.

2.6 NOTES ON EPILEPSY (FITS)

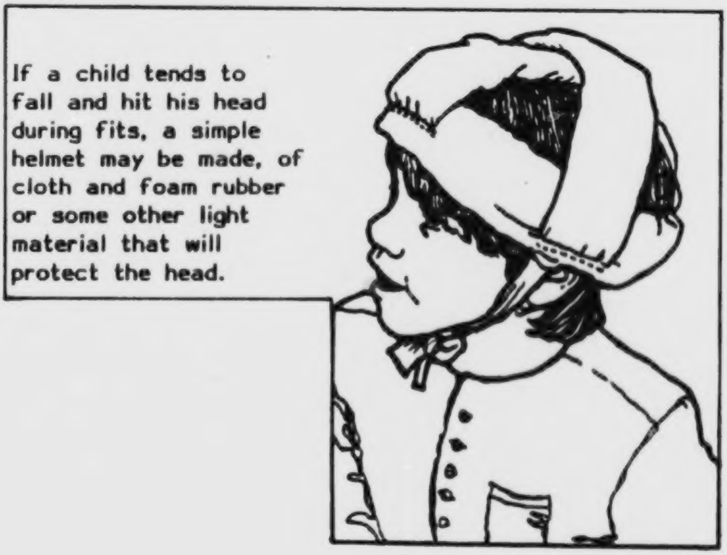
Fits (or *epilepsy*) happen in children who are mentally normal as well as those who are mentally retarded. Fits can usually be controlled by taking the right amount of the right medicine. If the fits are controlled, the child who has them will be more easily accepted in society. When they are not controlled, some kinds of fits make it more difficult for a child to learn.

There are several medicines to stop or control fits. They should be prescribed by a doctor or trained health worker. There may be *side effects* such as sleepiness, skin rashes or behaviour problems. It is important to find the lowest dose of drug that will stop the fits. Where the fits cannot be stopped, the right dose of drugs should result in the least fits without unwanted side effects. For this reason, several visits to the doctor should be made until the correct dosage can be fixed. The medicine is not a cure for the fits, but it should stop fits while it is being taken regularly. Some children stop having fits as they grow older, so they can stop taking medicine. But medical advice should be taken before stopping the medicine.

If a child has a fit in school, make sure that he is not in a position where he might fall or hit his head against sharp objects. Do not fuss over him. Do not try to put anything in his mouth. If he is sleepy when he comes round from his fit, allow him to sleep until he wakes. Do not make a fuss if he wets or soils himself during a fit: he has no control over this. If it happens often, make sure that he has some spare clothes kept in school.

It may happen that one fit is followed by another without the person regain ing consciousness ('coming round'). If this goes on for ten minutes it is a medical emergency and a doctor should be called immediately. This condition is rare. It is most likely to happen if medicines have been stopped suddenly. The child's usual doctor must be informed if this happens, so that treatment may be adjusted to avoid the emergency happening again. (The usual treatment to stop a sequence of fits is to inject Valium into a vein. This makes the person sleep very deeply for some time. While asleep in this way the person should be placed to lie on his side, with his face turned well to one side to avoid choking on his tongue.)

Do not confuse fits with *temper tantrums* in which a child holds her breath until she falls unconscious. This is a behaviour problem which she has learnt as a means of getting her own way. It is not helped by medicines. To help the child to stop behaving in this way, she should never get what she wants by this means, nor any special attention when she regains consciousness. Instead, she should get plenty of attention for good behaviour, and may receive what she wants (if reasonable) only when she asks politely.



If a child tends to fall and hit his head during fits, a simple helmet may be made, of cloth and foam rubber or some other light material that will protect the head.

3.0 HOW TO HELP & WHAT TO TEACH

3.1 NORMAL BEHAVIOUR LEADS TO ACCEPTANCE

"*The most important thing about a mentally handicapped person is that he or she is a person with very much in common with all of us.*" That is how Chapter 1 began. The greatest need of a handicapped person is to be accepted as "a person with very much in common with all of us."

When we work day by day with mentally handicapped people we get to know them, and then it is not hard for us to see how much we have in common. But the ordinary man in the bazaar, when he meets a mentally handicapped person, either laughs at the "*pagal*" or feels pity. Neither way does he act as though he is meeting a fellow human. It is our duty as teachers to enable our handicapped pupils to act and appear more like normal people, in the eyes of the stranger who meets them.

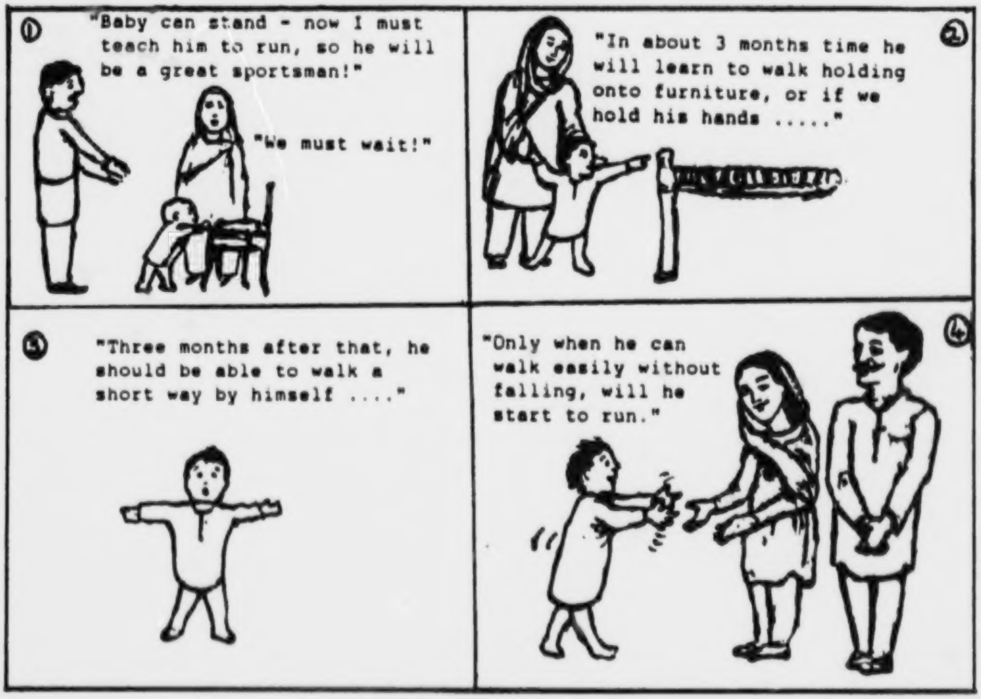
How can we do this ? For a moment, we must look at our pupils through the eyes of a stranger, as though we did not know them. In what ways do they seem different from normal people ? Check-lists are available of skills used by ordinary people in everyday life (Appendix III). Let us see which of these skills need to be learnt by each of our pupils. If one of our pupils behaves in a strange way, we should help her to learn a more normal way of behaving, so that she will not provoke pity or laughter when she appears in public.

'Normal people' are able to take care of themselves and live independently. As far as possible our pupils should learn to do so. Normal people can talk easily and sensibly. Let us help our pupils to do this too. Our pupils will not learn to do *everything* that other people can do. But each additional skill helps them to be more acceptable in public, and to have more choice in their lives.

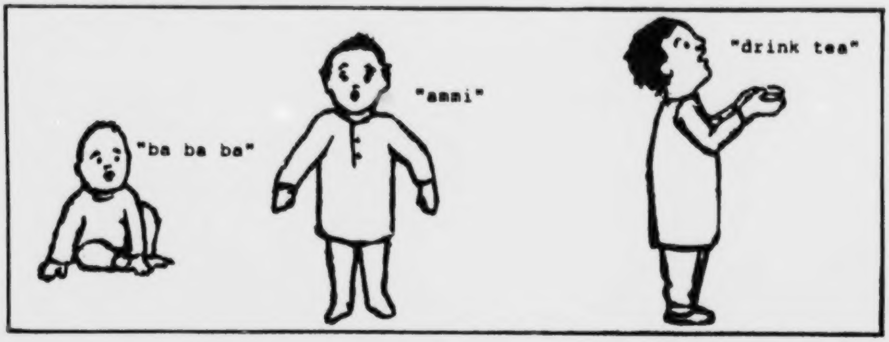
3.2 DEVELOPMENTAL SEQUENCE

We do not pick *at random* the skills our pupils should learn.

* *Example 1.* When a normal baby learns to stand up, he cannot immediately run. First he learns to walk while holding on to something; then to walk without support. Only after he has learnt to walk quite easily, he will learn to run.


①
"Baby can stand - now I must teach him to run, so he will be a great sportsman!"
"We must wait!"
②
"In about 3 months time he will learn to walk holding onto furniture, or if we hold his hands ....."
③
"Three months after that, he should be able to walk a short way by himself ...."
④
"Only when he can walk easily without falling, will he start to run."

* *Example 2.* The ability to speak a sentence depends on these skills (among others): 1) to make all the sounds needed; 2) to know and remember the meanings of all the different words; 3) to be able to fit the words together in the right order. The child learns to make sounds, and fits them into words of which he is learning the meanings. Later he uses two-word phrases to convey meaning, then three-word sentences, which slowly grow into longer sentences.


"ba ba ba"
"ammi"
"drink tea"

There are many skills that a child cannot learn until first he has learnt other skills which are related but simpler. Some skills are made up of a combination of two or more simpler skills, each of which must be learnt separately before the child can put them together. We say that these skills must be learnt in a *developmental sequence*. By this we mean an order, usually followed by the normal child as she develops, in which simple skills are learnt first, and then harder skills are built on them or other skills are added.

* *Example 3.* A child will not have enough hand control to use a pencil until first she has enough control to build a tower of bricks. Building up bricks may not in any way help her appear more normal, but it will improve her hand control - which is needed for many other important skills apart from using a pencil. Building bricks also helps in the early stages to prepare for number work. Our final goals are skills for 'normal' living, and we must follow a developmental sequence to reach these goals. *There are very seldom any short cuts.*

3.3 USING CHECK-LISTS

To decide which skills a child needs to learn, it is useful to start by using a check-list of skills that a normal person uses. The check-list shows skills in approximately a normal developmental order. Check-lists are divided into separate charts for different kinds of skills - *large movements, small movements, early communication skills, understanding language, using language, pre-counting skills, feeding, dressing, washing and toilet training, social behaviour.* As already explained, a child's development may be very uneven - he may be able to do everything on one chart but very little on a different chart. (See Appendix III).

A separate check-list should be filled in for each child. The teacher should begin by ticking everything that the pupil can do easily. Then she should pick the *next one or two skills* on each chart, (or any that have been missed out of the normal order). Those are the ones that the pupil now needs to learn or needs to practise.

The teacher should not begin to teach until she has decided what she wants the pupil to learn. She cannot do that until she knows what the pupil can already do. If the teacher picks something the pupil can already do, she is wasting time. If she picks something too hard, the pupil will fail and may become unhappy. The assessment charts are not a test for a child to pass or fail. Items should not be ticked unless the pupil can do them easily, without help. Skills and activities which the child can do *with some difficulty or needing some help* are often the ones which he should work on at school, in order to master them and move on to the next.

In this chapter we have talked about what the pupil must learn rather than what the teacher should teach. What the pupil is learning is more important than the teacher's activity.

** *The teacher is a person* **
** *who helps the pupil to learn* **
** *however that may best be done,* **
** *rather than a person who behaves* **
** *in a particular way* **
** *in a classroom.* **

(This can also apply to parents or to another pupil).

3.4 THE IMPORTANCE OF PLAY

Sometimes we hear people say about a child "Oh, she's only playing". In fact, *playing* is one of the most important things a child can do. While she plays, the child is learning and practising new skills of all kinds. Children enjoy play, so this helps them to learn more easily. Sometimes adults think of learning as 'serious work', but when learning is enjoyable then it is more effective. *At play, the child teaches herself.*

There are many different sorts of play, which provide the chance to learn different sorts of skills.

* *Play with people*

Through playing with people (usually family members), a small baby learns to relate to other people. The baby enjoys being cuddled and tickled, peeping games and clapping hands (which also teach the child to imitate - a very important skill). As the child grows older, he learns to play games in which he has to take turns - an important social skill. At first the child plays with adults, then learns to play by himself. Finally he learns to play cooperatively with other children: this enables him to form friendships and behave in a sociable way.

* *Play with objects*

By playing with objects, a child learns to tell the difference between one kind of object and another, and how they are used - skills she needs for language development. At first a baby *explores* objects - she finds out what something feels like, tastes like, what noise it makes if it is hit or thrown etc. Normal babies, from about 10 months, like *'hiding and finding'* games - these help them to know that things still exist even when they can no longer see them. This is a very important skill, as we will see in

Chapters 6 and 11. Some handicapped children may still need to learn it when they are much older.

Children learn that they can change the world around them and about *cause and effect*, by playing with things. If a child pushes a tower of bricks, it *falls down*. If he hits a drum, it *makes a noise*. Some things *break* when hit. If a child hits a ball it *goes away*. Many toys are made especially to teach different skills. Some toys teach motor coordination - hammer toys, threading beads. Bouncing and catching a ball teaches hand-eye coordination. Playing with sand, water, clay, dough, teaches children about the '*feel*' of the different materials, an awareness of quantity and how it changes etc.

* *Imaginative play*

In imaginative play the child practises:-

1. what he has already learnt about objects (e.g. when he pretends to comb his hair).
2. social skills e.g. when he plays with dolls, (feeding a doll, putting the doll to bed, playing at tea parties, schools, shopping etc).
3. language skills, in talking to dolls, to herself, to the teacher or to other children with whom she is playing.
4. learning about *symbols*, where one object is made to take the place of another, (e.g. a box may be a car, a brick may be a telephone, some leaves and flowers = a meal, etc).
5. acting out his worries (e.g. playing at doctors, if he is worried about having to visit the doctor, etc).

* *Physical play*

In physical play, a child develops her strength and coordination. This starts with the tickling and bouncing a baby enjoys, and kicking, throwing and catching games, playing on tricycles and bicycles. After childhood comes the adult's interest in sport to continue developing his or her physical skills. Children's sports may also help to develop social abilities through team cooperation.

Children with handicaps sometimes need help in learning to play. Some children are not active, and need to be stimulated, to be given interesting things to play with. The teacher may herself need to play with these things; as well as showing the child how to play, she must show enthusiasm and enjoyment in the activity, to make the child interested to do the same.

Other children do not play because they spend too much time running about. Help these children by finding an activity at exactly the right level for their ability, so that they will find it interesting. These children should be in a situation without a lot of distractions. For each child, the right level of play activity can be found after filling in check lists and looking at child development charts.

All children should be given toys or equipment to play with *of the right level*, so that they are learning a new skill or practising one which they recently learnt. If the activity is too easy, the child gets bored, and learns nothing. If it is too difficult she will not play, but will 'mess about' with any equipment, perhaps spoiling or breaking it. Then she will certainly lose interest in it, and later when she would be ready to learn, it may have lost its attraction.

Some mentally retarded children 'play' in a very repetitive way, just carrying on the same actions again and again, e.g. twiddling a piece of string in front of their eyes, or pushing a cart backwards and forwards on the same spot, or laying out blocks on the table in exactly the same positions and rocking backwards and forwards, staring at them. This sort of activity is not really play. Such pupils should be encouraged and shown how to play in a more constructive way, as described above (See also Chapters 15 and 16).

It should be clear from this section that the competent teacher of children with mental handicap will spend a lot of his/her time playing with the pupils. The amount of time spent on activities which would normally be thought of as play will depend on the age and ability of the children in a class. But all pupils learn more easily if their activities are enjoyable and are fun for teacher and pupils.

3.5 THE ROLE OF THE SPECIAL SCHOOL

What do we try to do in a special school ? We help children to develop and learn. We help them to catch up on the delay in their development. We give relief from stress for the child and his family. We teach skills that are useful for daily living, such as washing self, dressing, eating politely etc. We teach these skills in whichever ways are easiest for the pupil to learn - often by activities that appear to be *play*, and are enjoyed by both teacher and pupil. We try to help the pupil's family to understand and come to terms with their child: to love and accept her as she is, while at the same time helping her to learn and become more independent.

3.6 APPROPRIATE BASIC SERVICES

In Pakistan, as in many other countries, the person who works with handicapped children is likely to meet all kinds of disabilities. The chart on the next page shows the basic needs and services suitable for children and young people with the most common sorts of disability.

Almost all disabled or mentally retarded young persons need *social counselling* about how they fit in with the rest of society. They need social activities with people of the same age group. Taking part in such activities will show up any particular *social skills* that the disabled or retarded young person needs to learn. This will vary a lot from person to person and according to the social level of the family. The teenager and young adult will also need vocational counselling or training, in almost every case.

Children and young people with more than one disability will need help, from trained people, for *both* disabilities. If one of the disabilities is mental retardation, it will usually be best for the child to attend a school for mentally retarded children. His teacher should get the help of people trained to deal with the second disability. Other children should attend schools for whichever disability is more severe. They may sometimes attend a school for retarded children if the other special schools do not have enough facilities to be able to cope with the multiple handicap. Teachers need to ensure that any such child is doing work suitable for her intellectual ability.

* *Integrated schools*, in which children with normal abilities and children with some disability learn together, are becoming more common. In an ideal world, all schools could give the best of education to every sort of child. Then all children would grow up to know one another's strong and weak points and to respect one another, without thought of ability or disability. At present, no country has reached this ideal. Yet the *principles of teaching, learning and development*, as described in this book, apply equally to all children. They can be used equally in special schools or integrated schools, or by families at home.

CATEGORY	EDUCATIONAL NEEDS	OTHER BASIC NEEDS
PHYSICALLY DISABLED		
a) Mild	As normal child	Physiotherapy *plus*
b) Severe	Means of communication (eg signs, symbols, foot instead of hand) and general mental stimulation/education. Training in independence for personal needs.	Social & Vocational Counselling and Activities
BLIND OR PARTIAL SIGHT		
a) Enough sight to read large word cards	As normal child, using strong lighting, magnifying glass and hand-written large cards.	Spectacles. Mobility training if eyesight getting worse. *plus*
b) Severe/total Blindness	Braille/tape books make education easier. Mobility training. Recognition of objects by touch.	Social & Vocational Counselling and Activities
HEARING IMPAIRED		
a) Mild: recognises words by lip-reading & sound; tries to speak, with some success.	Can proceed as normal child, with plenty of individual teaching. Pupil should sit close and always be able to see teacher's mouth. Help child pronounce new words.	Check by specialist: hearing loss may be treatable. Or use hearing aid, if family can maintain. Speech therapy. *plus*
b) Severe/Total Deafness	Communication: probably sign language. General education will will proceed slowly due to lack of language experience.	Social & Vocational Counselling and Activities.
MENTAL RETARDTN.		
a) Mild	Basic literacy/numeracy including time, money etc. Progress slower than normal. Teacher must use imagination to keep up interest.	Advice on possible future employment.
b) Severe	Program for individual child according to mental level. Social skills and independent personal care emphasis. Toys and games to stimulate mental development.	Teaching such children is skilled work, yet many of them can benefit in a play-group with capable yet untrained staff. *plus* Social & Vocational Counselling and Activities.
MULTIPLY HANDICAPPED	Appropriate features from each handicap, as above. Communication, social skills and independent self-care skills are especially important.	

4.0 HOW OUR PUPILS CAN LEARN

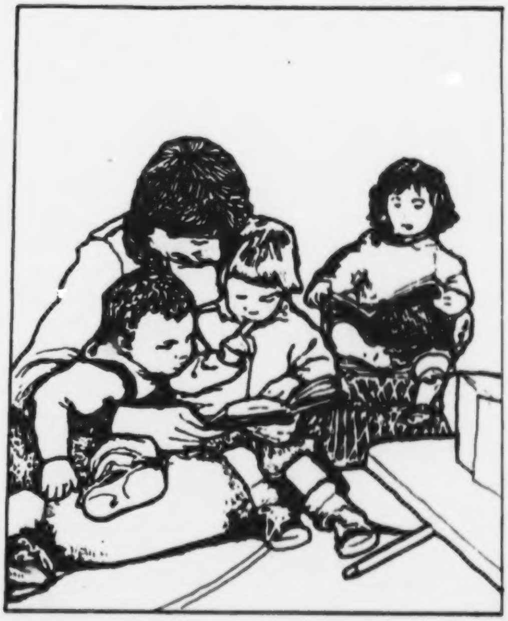
As stated in the previous chapter, we must first decide what each child should learn. This is most important. A really good teacher knows exactly what she is trying to teach each pupil in her class at any time. But to know what the child should learn is only the start. This chapter looks at how we can enable our pupils to learn.

4.1 FRIENDLY ATTITUDE

The pupil will learn most readily from a person whom he loves and respects. Such a relationship or friendship will take some time to build up. Cheerful, relaxed children will take a few days to make a friendship with a teacher. Children who are withdrawn or very shy may take a year to form a friendship. Most pupils will make a friendly relationship within two or three weeks, with a teacher who works with them every day.

In forming a close relationship, the teacher must be ready to have physical contact with the pupil. The younger or more severely handicapped children may work best sitting on the teacher's knee. The teacher must take care to show friendship to the child in small ways too, e.g. when a teacher takes a pupil for a walk, hands should be held in the way friends do. The teacher may grip a child around the wrist only when deliberately being unfriendly (to show disapproval of misbehaviour).

The teacher should find out the child's own interests and use these to make learning more interesting, e.g. if the child is interested in trains and is learning to count, let him count model trains or pictures of them.



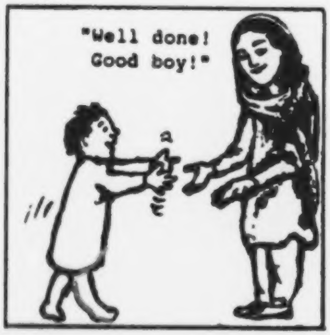
Volunteers or students, who come into a school or centre only once a week, should work with those children who more easily make a relationship. They should aim at getting to know not more than three or four children. But if the volunteer is definitely committed to visit the school over a long period, she may spend more of her time with a single pupil who needs a lot of attention in order to develop a friendly relationship.

Teachers and regular visitors to the school should remember that their own behaviour is a 'model' for the children. If they behave calmly and politely, then the children will copy this pleasant behaviour. If they are hasty and rude, then that is what the pupils will copy.

The teacher should quietly tell the pupils what to do. In the case of a child who often does not obey, the teacher should tell him to do something *only* when she can give time and attention to make sure he obeys. Some children are good at relating to, and teaching, one another. They may do so sometimes under the teacher's supervision.

4.2 MOTIVATION AND REWARD

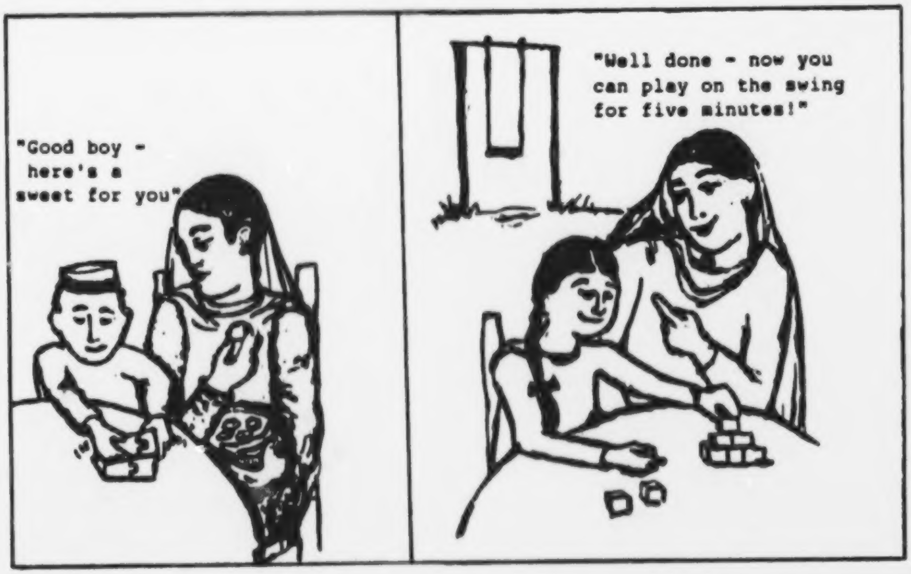
How are people motivated to do things ? When a child first stands upright or takes his first step, people *praise him* and show pleasure. The child understands that he has done a 'good' thing, because something good follows. In school, an older child get the answer right and is praised: she learns that correct answers bring a reward of praise. The baby cries and is given milk: she learns that crying is a way to get something that she wants.


"Well done!
Good boy!"

If we get a reward (something we like) as a result of what we do, we are motivated to do that thing again. This works both for actions we *want* our children to learn and for things they *should not learn*. Suppose a child starts to scream and shout in temper, and someone gives her a sweet to quieten her: she learns that screaming is a way to get a sweet.

Different people like different things:- sweets or food, playing with favorite toys, music, smiles, praise, hugging, money, satisfying one's curiosity. To teach our children effectively, we should make sure that *something they enjoy follows when they do the right thing*. For more severely handicapped children the reward may often be nice things to eat and drink, when they do the right thing. Others will be pleased by praise. Others like to play on a tricycle or hear some music. (If food and drink are used, *small pieces* of food and *sips* of drink may be given. Then the child continues working, or repeats the task without a long break, and is still motivated to try to get further reward.)

When any reward is given, the teacher should also *smile and praise the pupil.* The pupils will learn to connect the praise with the reward. After some time, *praise by itself will become sufficient reward.*


"Good boy - here's a sweet for you"
"Well done - now you can play on the swing for five minutes!"

Reward and praise must follow the pupil's action *immediately,* so that she understands the connection between her good work and the teacher's response. If there is a delay, the child may learn the wrong lesson, e.g. being praised for doing nothing rather than for *finishing the job;* or for showing work to the teacher rather than for *completing it;* pupils sometimes pick up the habit of coming to the teacher to show unfinished work.

The good teacher makes sure that pupils get praise, attention or other rewards for getting on with their work. In a badly run classroom, pupils get attention only when they misbehave. Of course, pupils sometimes do things wrongly and need correction. The teacher should watch her own behaviour and aim to praise (or somehow reward) each child *ten times* for every one time that she has to correct him. If the teacher finds that she is not praising a child so often, she should look for more reasons to do so.

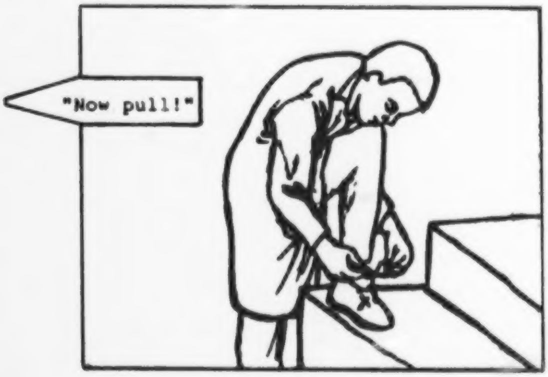
We can use rewards to help pupils learn when some situations are right for certain actions but others are not, e.g. relieving oneself in the toilet, not in the classroom. When teaching this, give a sweet or other reward when the child does the required action in the toilet, but give no reward when it is done anywhere else. Make sure that the attention given to the child in changing his soiled clothes is not rewarding.

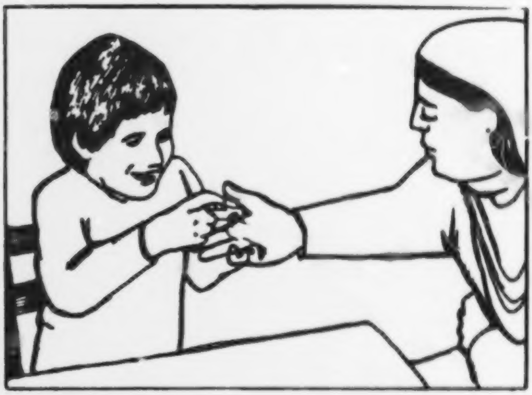
The teacher should make sure that each pupil has plenty of chances to be rewarded. The child who tries and fails gets no reward, so she gets discouraged and loses interest. Work then ceases to be a 'good' thing and her behaviour may fall back so that she becomes naughty. The methods described below of prompting, shaping and chaining can be used to introduce quite complicated tasks in such a way that the pupil is likely to succeed and so be rewarded. *Successful completion of a task is often a natural reward in itself.*

4.3 PROMPTING

When first teaching a new skill we can use *prompts*: that means we give some sort of indication or clue of what the child needs to do.

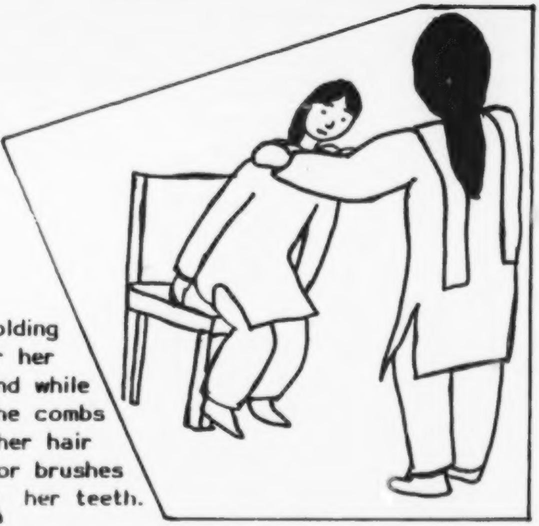
If the pupil can understand language fairly well, we can tell him what to do in words: i.e. give a *verbal prompt.*

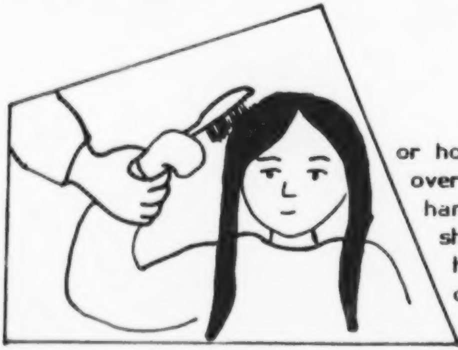




The teacher can also help by using gestures, e.g. holding out a hand when she wants the pupil to respond to her command to "Give it to me"; or by showing what is the action first with the pupil watching, e.g. building a tower of bricks or drawing a circle.

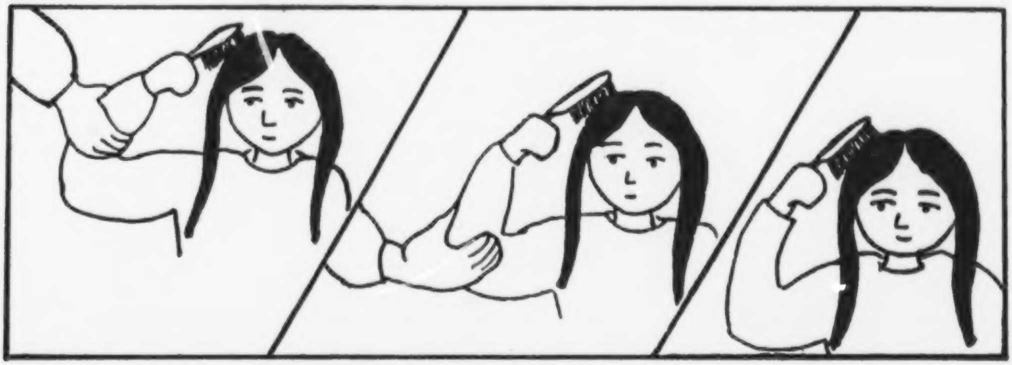
Sometimes the teacher will need physically to guide the pupil's movement, e.g. gently to push her down into a chair when she has been told to sit;





or holding over her hand while she combs her hair or brushes her teeth.

If a teacher were to give prompts all the time, the pupil would not learn to do the job alone. So there should be a *slow reduction of the prompt* e.g. holding the hand further up the arm and reducing the pressure while the pupil combs her hair or brushes her teeth.

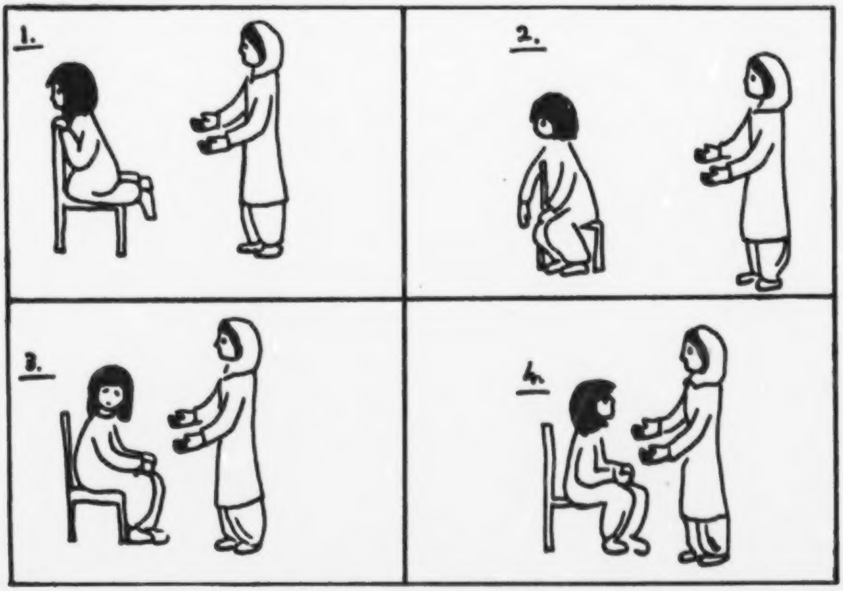


Prompting is a way to help the pupil *complete the action and receive a reward for it*, and so to learn that this action is a 'good' thing.

4.4 SHAPING

In *shaping* a skill we start by rewarding any response that is roughly like the final skill we require. Then we work by stages toward the skill done correctly – asking for it to be *a little better each time* before giving the reward.

* *Example 1.* To teach a child to look people in the eye, who is unwilling to do so: At first the child gets a reward for turning a little towards the teacher; next, she must look at her teacher's face before being rewarded; then look at the teacher's eyes. (This may take a period of weeks or months). It might help if the teacher holds the reward (if it is a small object) close to her own eyes.



* *Example 2.* To teach a child to kick a ball: first the child is required to touch the ball with his foot; later to push it; finally to kick it.

* *Example 3.* Sorting straight nails from bent ones : First mix in some very crooked nails, so the pupil can easily tell them apart; then gradually make the difference less clear.

4.5 CHAINING

Some skills are best taught by *chaining*. These are skills involving several actions to be done in the right order, e.g. eating with a spoon, tying a knot, putting on a coat, making tea. First, list all the steps needed to complete the skill to be learnt. Reward should be given *only when the task is complete*, not half way through. For many skills, the teacher herself does, or prompts, *all but the final step*. The pupil does the final step, gets the satisfaction of completing the task, and is rewarded. When he has learnt to do the final step easily, the pupil must do *the final two steps*. Little by little she works back through all the different steps until she knows the complete task. Example:-

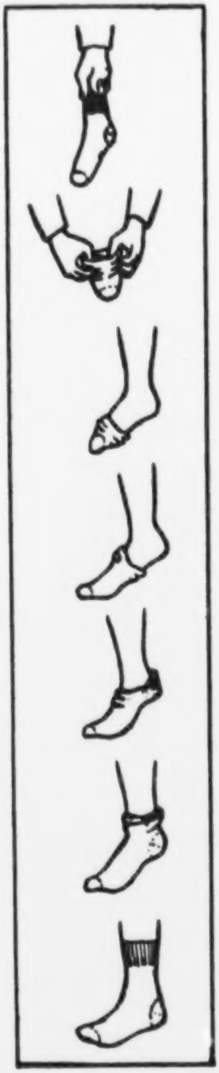
To start with, the teacher physically prompts or does steps (1) to (6). The pupil does (7) and gets a reward

When (7) can be done easily, the pupil is required to do steps (6) and (7) before getting a reward.

After succeeding in this, the pupil learns to do (5), (6) and (7) after the teacher has done the steps (1 - 4).

And so on.

For many tasks the teacher may give physical prompting to help the child to do the first steps, which gives more opportunity for learning than if the teacher simply does them herself.



(1) Pick up sock

(2) Roll up sock in hands

(3) Put over toes

(4) Pull down towards heel

(5) Ease over heel

(6) Pull over ankle

(7) Straighten it

4.6 TASK ANALYSIS

The process described above, i.e. breaking down the task of putting on a sock into 7 separate steps to be taught, is known as ***task analysis***. Many skills which would be very hard for a mentally handicapped child to learn, ***can be learnt*** if the teacher first uses task analysis and then teaches by the chaining method.

* *Example*: To boil and eat an egg.

1. Get pan, spoon, bowl, egg (with care).
2. # (Light cooker/heater).
3. Place egg in pan, gently.
4. Fill pan with water to cover egg.
5. Place pan on heater.
6. Watch water come to boil, then reduce heat.
7. § Set timing device.
8. Watch for time signal.
9. Switch off heat at correct time.
10. Fill bowl with cold water.
11. Use spoon to lift egg from pan into cold water.
12. Wait for egg to cool.
13. Remove egg from water.
14. Crack shell with care.
15. Remove shell and put egg on plate.
16. Eat egg with small spoon.

(2.#) The method of heating used will depend on what is available at school, and on what is normally used in the pupils' homes. This step may need to be taught separately, using its own task analysis. Or it may be that the child cannot safely learn this particular step yet. Yet he can learn to master all the rest of this task, and then go on to learn more difficult cooking skills before learning to light the cooker.

(7.§) The 'timing device' used will depend on whether the child can read the minutes on a clock. If not, the teacher may devise some sort of timer, such as a sand-flow timer, a music box, or show the child some task that he must do which will take the right amount of time. The important thing here is that the pupil should have some means by which he can tell that the right amount of time has passed, without having to ask the teacher.

Task analysis breaks the task into easy steps, which the pupil can learn to do. Steps are usually taught by *backward chaining*. The teacher prompts, or herself does, the earlier steps; the child then tries the new steps; and ends up doing unaided the final steps which she has previously learned. Although this method makes learning very much easier, it is still necessary for the pupil to be *developmentally ready to learn* each of the stages before starting.

- *Examples:* the child who is learning to put on a sock must have enough grip to be able to hold the sock, and be able to bend so that he can reach his feet. A child learning to serve a cold drink should be able to pour water from a jug into a cup without spilling. A child learning to tie a shoelace must be able to handle laces well enough to thread beads, wrap string round a parcel etc.

4.7 GENERALISATION

Mentally retarded people find it hard to *generalise* what they learn. By this we mean that if a pupil learns to do a task in one situation he does not necessarily know how to transfer that skill to another situation.

- Examples: a pupil can tie together two pieces of shoe-lace on a frame, yet he may still not be able to lace up his shoes until he is re-taught to tie laces on shoes. A child may know which of two toy cars is 'big' and which 'small', but that does not mean he knows which of two boxes is big and which small. He may be able to say 'chair' when asked "What is this ?" referring to the chair in the classroom, but he may be unable to use the word 'chair' in conversation, and he may not be able to name the chairs at home.

This shows some important lessons for the teacher to learn.

- We must teach skills in situations similar to those in which we expect our pupils to use them. (For example, to teach a child to handle money, we must take him shopping in real shops).

- We must give lots of practice using many different materials and equipment if we want our pupils to learn abstract ideas like size, colour etc.

- We must encourage pupils to use words in situations other than in response to the teacher's question "What is this ?" (This and other aspects of language learning will be discussed further in the next chapters.)

4.8 PLANNING AND MOVING ON

As indicated in Chapter 3, the teacher should choose for each pupil one or two tasks to work on from each section of the charts, (motor skills, communication and language skills, self help skills, pre-number, pre-reading, pre-vocational etc.) For each pupil, at any time, the teacher should have chosen and made a note of between 4 and 8 tasks on which that pupil will work regularly until they are completely learnt.

When the teacher has chosen a task to teach a pupil, he must decide on his *criterion of success*, i.e. what the pupil should be able to do when the task is completed. When this criterion or standard is reached, the pupil stops work on that task. The teacher gives her a new, more difficult task to work on.

* *Example*: the teacher may decide to teach a particular child to match pictures. The teacher may decide that when the child can match a particular set of 20 pairs of pictures without any help or prompting, the task will be regarded as complete and the pupil ready for the next task. The next task may be a harder matching task (e.g. shape matching or word matching) or it may be a sorting task. Or it might be to use another set of pictures to see if the pupil has *generalised* her matching skill.

It is not possible to say in advance how long a particular pupil will spend in learning a particular task. The teacher should aim to define tasks in such a way that the pupil should completely learn them in about a month. If the pupil takes less time, then move straight on to something harder. If the task is not complete in a month, then the teacher should consider redefining it to make it easier. (In the above example, instead of trying to teach the child to match 20 pictures, the teacher could aim to use just 5; and when the child succeeds with 5, add another 5 and so on).

Pupils should not be left to become bored with what they are doing. When the teacher sees that a child has worked for long enough at a particular activity, there should be a change to another task. The new task should be of a different sort, in another field of skill. But if the pupil is concentrating on what he is doing and is getting on happily, the teacher should not take him away from it simply for the sake of change.

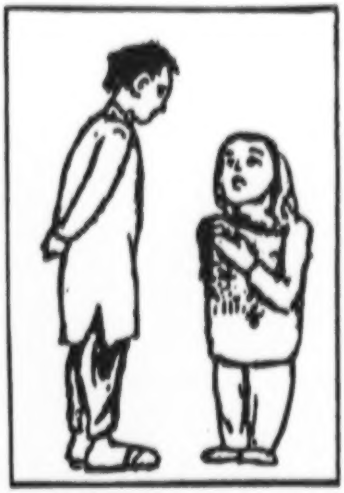
5.0 COMMUNICATION

5.1 A VITAL ABILITY

One of the most important things a mentally retarded child or adult needs to learn is how to talk as well as possible. People who cannot talk properly are usually considered very stupid, even if they are not.

The disabled or mentally retarded person has a more difficult life if she cannot say or show what she needs. Other people will more easily accept her as 'like themselves' if they can talk to her in an ordinary way. Being unable to speak well is often the most obvious feature of mental retardation. Many parents, especially those who are more educated and of higher social status, say that their child has a "speech problem" when the child is in fact mentally retarded.

"Speech", "Language" and "Communication" are separate skills. They develop separately. They are all needed in order to talk 'like normal people'.



- *Speech* is the ability to make sounds correctly, and to put them together so that they flow easily with the right sound and rhythm. The result is that they can easily be recognised and understood as words and sentences.

Speech is more difficult for people who are *deaf* or have *cerebral palsy.* Many mentally retarded children have difficulty learning to speak clearly. A few children have special problems with speech, without seeming to have any other handicap - maybe they have undiagnosed deafness or have problems with sound perception or imitation skills.

- *Language* is a system of communication which includes 'vocabulary' and 'grammar'. Vocabulary may be spoken words, or signs made with the hands, or symbols drawn on paper. Grammar consists of rules for putting together the words, signs or symbols.

- *Communication* is the passing of information from one person to another. This can be done by using language, or by sounds, or by simple gestures, facial expressions, body movements etc.

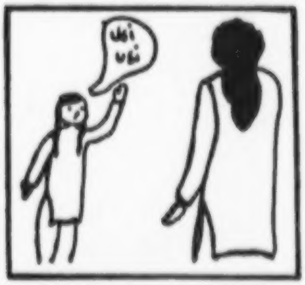
Communication enables a person to express herself, and to make things happen, e.g. by indicating what she wants. We need better communication skills to express more complicated messages so that the meaning is clear. Some children with weak communication skills may try to communicate with aggressive behaviour e.g. kicking or shouting. If they learn more effective communication skills, the unwanted behaviour is likely to be reduced.

5.2 VARIATIONS IN ABILITIES

Some children have speech, but not language skills. Amir, for example, can repeat perfectly any word said to him - even a long word like 'motorcycle' - but he does not know what the words mean, so it is not *communication*. Amir's only form of communication is smiling or crying, like the communication of a very young baby.

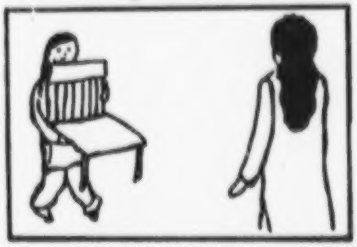
Other people have language ability but no speech. Chohan, with severe deafness, has never learned to speak (because he has never heard speech). When Chohan communicates with signs he is *using language*. He may also learn to read silently and communicate by writing. Similarly Fauzia, a severely spastic child, cannot speak but follows conversation taking place around her and clearly understands what is being said. Fauzia can also communicate by signs or by showing cards with pictures or words written on them. To nod and shake the head for 'yes' and 'no' is to use a very simple sign language.

A small baby or a profoundly handicapped child may have no language, yet still be able to communicate likes and dislikes by facial expression, body movements or sounds. With people who know her, a child may be able to communicate effectively even with very limited speech and language.



Bushra runs to anyone who comes into the school playground. She says *"usi, usi"*, holds her hand up twice like a policeman stopping traffic and then runs off. Her speech is poor : the word she is trying to say is *"kursi"* (chair). The language she is using is limited to one word and only one gesture (meaning "wait").

People who have met Bushra before know that she is communicating "Wait there while I fetch you a chair." With improved language skills, Bushra will be able to express herself so that she can be understood by strangers also.



Parents and teachers of special children, whether mentally retarded or with other disabilities, often feel that 'speech' is the greatest need. In fact, for these children to learn to talk, the first priority is usually to increase their ability and wish to communicate. Once children develop the habit of communicating, it becomes easier to solve speech or language problems. Teachers and parents should encourage children to communicate as much as possible, by whatever means, and should respond appropriately when they try to communicate.

The teacher, and also the family, should be ready to encourage communication at all times of the day, during all activities, not just during planned 'language lessons'.

Many mentally retarded children will learn to talk in the same way as normal children, but they learn slowly. They need much encouragement to talk in ways appropriate to their stage of development. Their language development is delayed, but not abnormal. Some have problems with some pre-language skills, such as imitation, which need special practice. Many children who are mentally retarded also have some hearing loss, which will affect the development of speech and language skills. In some of them, the hearing loss may be permanent. In others, it may occur from time to time as a result of catarrh or ear infections. If at all possible, these infections should be medically treated.

* *'Tongue-tie' ?* Some families believe that their child has difficulty in learning to talk because of 'tongue-tie'. This is very seldom true. If a child can suck, and move her tongue while eating food, then her tongue is not 'tied'. Because of this mistaken belief, some deaf, spastic and other disabled children have had their tongues cut, causing them pain and difficulty in their efforts to speak. After this operation on the tongue, some children give up all attempts to speak. Without the operation they would probably have made some progress.

* Language delay alone. There are a few children whose use and understanding of language is delayed, while most other aspects of their development may be normal. These children are not mentally retarded. They may have other skills, not involving language, that are equal to those of normal children of their age group. They should be taught to talk, using methods of the sort described in this manual.

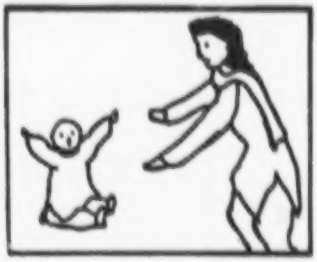
5.3 COMMUNICATION: DIFFERENT KINDS OF MESSAGES

A baby communicates by crying, face and body movement and special sounds when she is happy. At first these are not intended to be communication, but as she gets older they become intentional. Young children, as well as adults, communicate many different kinds of message:

- "WANT".....requests or demands...for objects or attention or action.
- "NO".......protests or refusals.
- "HELLO/BYE-BYE"....greetings in welcome or on parting.
- "LOOK".....making comments ... indicating something he sees or is doing or describing something (e.g. making 'brrm brrm' noise when in a car).

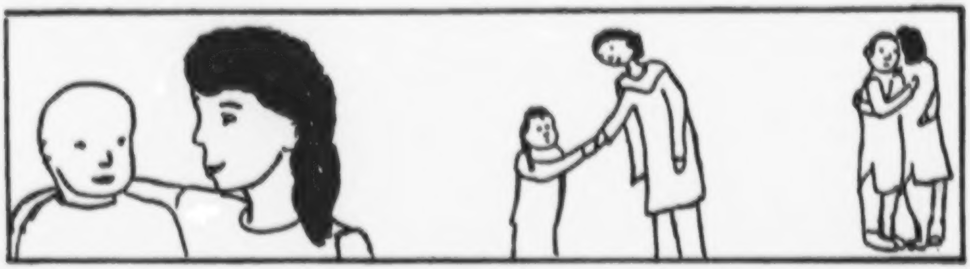
A type of communication that develops a little later is :
- "WHAT?"....questions...both asking and answering.

Any of these messages can be communicated by gesture, sounds or words. The baby communicates that she WANTS something by crying. When she is a little older she can show what she wants by pointing, calling for attention, holding out her arms to be picked up.

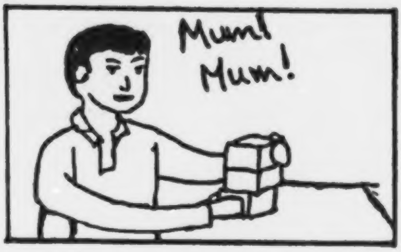


A small baby, on being shown a spoonful of some food he has never tasted before, may close his lips and turn his head away. This is his way of saying NO. He may struggle and scream when his mother is trying to put clothes on him:- again the message is NO.

The baby's smiles and gurgling sound on seeing her mother are the earliest way of saying HELLO.



The baby may point to something that interests him, but even before he is able to do this he will indicate something by looking at it, then at his mother, then back again. The child may make a noise with his rattle or other toy, then shout to attract attention to what he has done.



5.4 PLANNING TO TEACH COMMUNICATION SKILLS

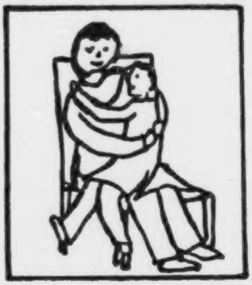
As with all teaching plans, we must first find out what our pupils can do. We must observe the pupil and see which of the many different kinds of messages she tries to communicate, and whether she uses gestures, sounds or words. We need also to know whether she is able to start communicating of her own wish, or whether she communicates only in response to another person's communication.

When we have found out how each individual child communicates, there may be *three* things to work on :

1. To enable the child to communicate more kinds of messages.
2. To teach her both to respond to others and also to be the one who *starts* a conversation.
3. To teach more advanced communication skills, i.e. ways that other people can more easily understand and that can be used to communicate more complicated ideas, as the need arises.

To begin with, we may wish to increase the number of kinds of message the pupil tries to communicate. In order to do this we need to find ways to make him want to communicate.

Small babies communicate 'involuntarily' i.e. without thinking about doing so. After a few months, the normal baby is communicating intentionally. The change happens because the baby learns to relate to other people. She begins to find out that she can change her situation by communicating, e.g. she can get other people to do things for her which she cannot do herself. The child who is not communicating must therefore first be helped to relate to others and to realise that she can have some effect on the things and people around her.



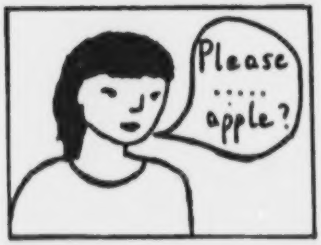
We can help a child to relate to other people by playing with her as we would play with a small baby, using lots of physical contact:- tickling, hugging, rocking, bouncing on knees, with laughter and noises and plenty of eye contact. (The child who will not make eye-contact is discussed on page 28).

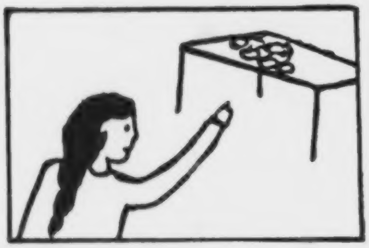
The teacher, family members and anyone else who spends time with the child should be alert for occasions when she seems to be trying in some way to change her environment - the things and situation around her. The child should be helped to achieve her goal, which will encourage her to see the useful effects of communication.

5.5 TEACHING SPECIFIC COMMUNICATION SKILLS

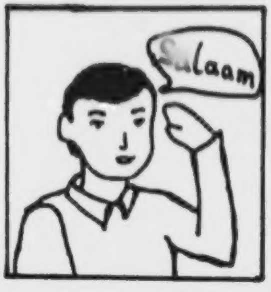
Teaching the pupil to:

- make requests: Take note of what things he likes, or what actions he likes to do, and then wait until he makes any sound or movement before giving him what he wants. In time he will learn movements or sounds to make 'requests'.


Please ..... apple?

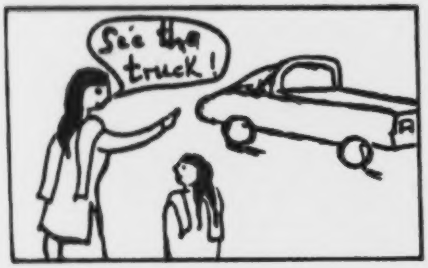


- Protest or refuse: Most children seem to know by instinct how to communicate "NO!" If a pupil does not, see how she responds if you give her something bitter to taste; or do something she does not enjoy; or stop suddenly during an activity she does enjoy, or let another child take her toys while she is playing. She may then protest in some way.
(Observe the results, but DO NOT base teaching plans on them:- the child should not connect her attempts to communicate, or to relate to others, with unpleasant experiences.)



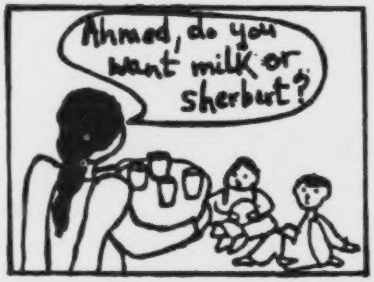
- Give greetings: during the day there are many occasions for greetings. Everyone entering the room may greet the child, saying hello or shaking hands, waving bye-bye on leaving, or any other simple, appropriate greeting. In time, she will start to respond and imitate.

- Make comments: the child will learn to look at and describe things by following the example of those around her. Both the teacher and the parents should point at things, with the child, naming them and encouraging her to do the same. Talk simply about whatever you are doing together, keeping alert for the child's response in whatever form.


See the truck!

* *Ask and answer questions:* Questions and answers are more difficult kinds of message for children to communicate. The ability to do so usually develops later.

- Answer: Make it easier by giving the child a choice. Try not to ask "What do you want to play with ?" Ask instead "Do you want to play with bricks or your doll?"


Ahmed, do you want milk or sherbut?

Ask the child "Do you want tea or fruit juice ?", rather than "What do you want to drink ?"

Your pupils should often have the chance to choose what they want to do, from a range of choices that you name for them.

- Ask: "Do you want...?" "Would you like...?" If the teacher asks such a question of each child before giving them food, or letting them sit to listen to music or play their favorite game, the children learn not only to *answer* questions, but how to *ask* them as well. (If a pupil says "No", his wish must be respected - otherwise he will see that the question has no meaning). The teacher may tell one pupil to ask the other children these questions before giving out drinks etc.

The teacher herself should ask questions when working with a child. Looking at a picture book, she may ask "What's that ? It's a car", both asking and answering herself. The pupil may soon start to imitate, saying "that" while pointing at an object, meaning the question "What's that ?"

Other question words may be learnt by turn-taking games e.g. hiding games, where first the teacher and then the pupils take turns to hide objects round the room, asking "Where's the ....?" When it comes to a pupil's turn to ask the question, she has already heard it several times from teacher and other pupils and can more easily imitate.

As in all teaching activities, it is important to combine FUN with some CHALLENGE for our pupils. If they are to learn well, they must enjoy their learning. There should also regularly be some new element, however small. The teacher should take care to give her attention whenever the pupil is trying to communicate something.

If a child does not seem to be learning to communicate very much, it may mean either that she is profoundly mentally handicapped (in which case she is probably also making little progress toward walking or movement); or else she may be severely disturbed; or she may have severe hearing loss or visual impairment. A deaf child should be able to learn to communicate, though he may not be able to learn to speak. The teacher should always be looking out for ways in which the child is communicating.

Children with severe physical disability, who are of average intelligence, can usually learn some method of communicating, even if it is only by using a code of eye movements. Children who have been blind from a very early age may have difficulty in communicating if they have never seen any of the normal forms of non-spoken communication used between adults, older children and babies.

5.6 INTERACTING WITH PEOPLE

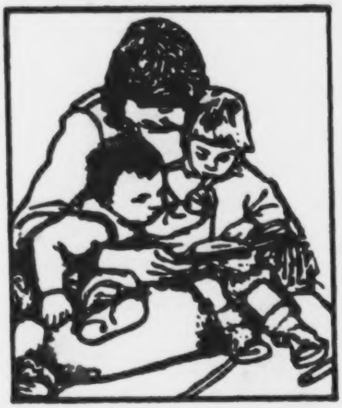
The development of relationships with other people is an essential stage on the way to communicating. During their early years, normal children spend their time in relationships with close family members. Children with mental retardation, even after their early years, may still need to relate to their teacher in the same way as a baby does to its mother or sister. The baby learns to relate by having a lot of physical contact, by physical activities, with laughter, noises and eye-contact. The mother, mother-in-law, aunt or older sister, carries the baby around and they look at things together.

There may be a 'conversation' without the baby using any ordinary words :

baby : *(points at mother)*
sister: see mummy
baby : am
sister: mummy's making chappatis
baby : err
sister: see how she claps her hands (demonstrates)
baby : *(claps hands)*
sister: what a clever girl, you want to make them too
baby : *(leans towards mother, whimpers, shows she wants to go to her)*

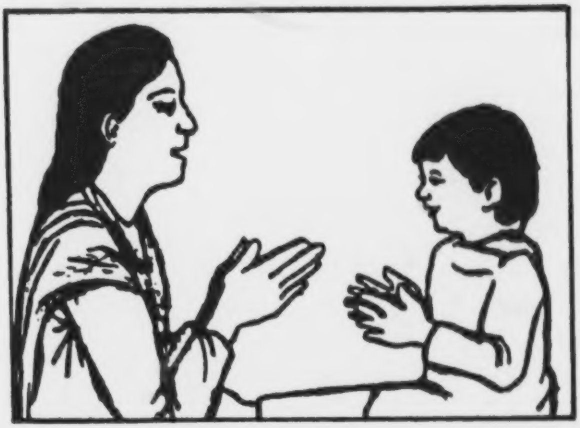
In this 'conversation' the baby uses no ordinary words. Her sister responds to gestures and sounds as in a normal conversation. We need to be able to relate to our pupils in this way. Children with handicaps often take longer to respond - it is important to wait for the child's response.

Interacting with people may involve looking at things together. In the above example, baby and sister both looked at mother. The child's gaze will shift from the object to the speaker and back again. We must start with things that will easily interest the child. If the child is interested in some object, maybe sequins on the teacher's clothing, a piece of jewellery or some brightly coloured object or toy, then we must also look at it with the child and talk about it very simply. Look at picture books together, and talk about the pictures, pointing to them. Whenever the teacher or any other person is doing an activity with the child, she should talk simply to the child about what they are doing.



Taking turns is also an important personal interaction skill. In conversation, people take turns to speak. We say something, then wait for the other person to say something in turn, then we reply. (Again, people with mental handicap may take longer to respond - we must give them time).

The teacher should find many simple activities to teach a child to take turns, e.g. taking turns to pat a balloon to keep it in the air; building a tower of bricks, taking turns to put one brick each; clapping hands in turn, etc. Taking turns may also involve imitation (copying), which is a very important skill.

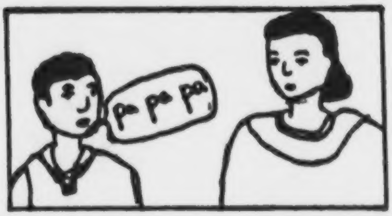


5.7 LEARNING TO IMITATE

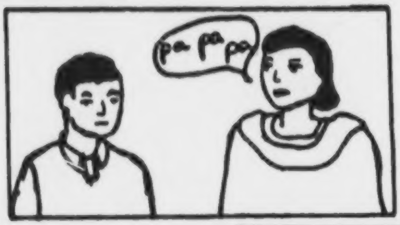
Imitation - copying what someone else does or says - is an essential skill for communication, language and speech.

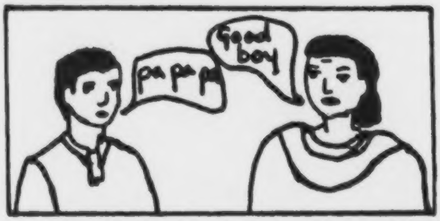
A child learns most easily to imitate *actions*. Begin with actions that the child sometimes does herself, i.e. that are known to be already within her ability. When the child does an action such as stretching her arms, or rubbing her nose, the teacher should copy. If the child repeats the action, (now she copies the teacher), reward her. If necessary, use a physical prompt. Drumming or clapping hands are fun actions to imitate. (Wait to give the child enough time to respond).

When a pupil has got the idea of imitating actions, see if she can imitate sounds. Again start with sounds the child makes herself. Any sound the child produces, the teacher repeats in the same way. The child may in turn copy the teacher - she should be praised and rewarded for imitating, and so will learn that imitating is a 'good' thing.



Often a child likes to imitate animal or car noises before she can say real words. This activity can be done with a group of children of whom some can already make the sounds easily. Pupils who still are learning will then join in more easily. Children may be less self-conscious if they make gestures with their arms at the same time as making the noise.





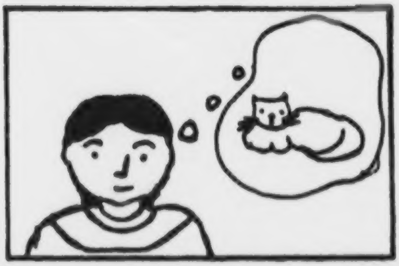
The older child should learn more difficult imitation skills, until he can imitate words and complex sentences (Chapter 8).

6.0 UNDERSTANDING WORDS

The first words that a child understands are used to communicate in certain special situations (e.g. 'no', 'Bye bye', 'Come here', as seen in section 5.5). The child learns to listen to and understand these words by hearing them often, in situations where the meaning is obvious. But learning to understand and talk about things and actions in a more general way needs more complicated skills.

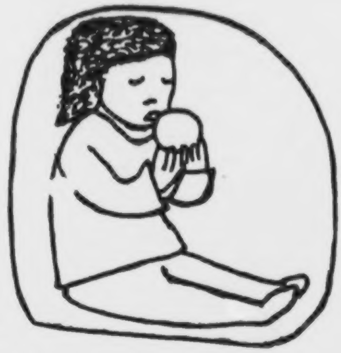
6.1 MAKING MENTAL PICTURES

When we hear the word 'cat', we have a mental picture in our minds of a small, furry animal. How does a child learn to make such mental pictures? Before he can make mental pictures a child must reach the stage of mental development where he can remember the existence of an object he cannot see.

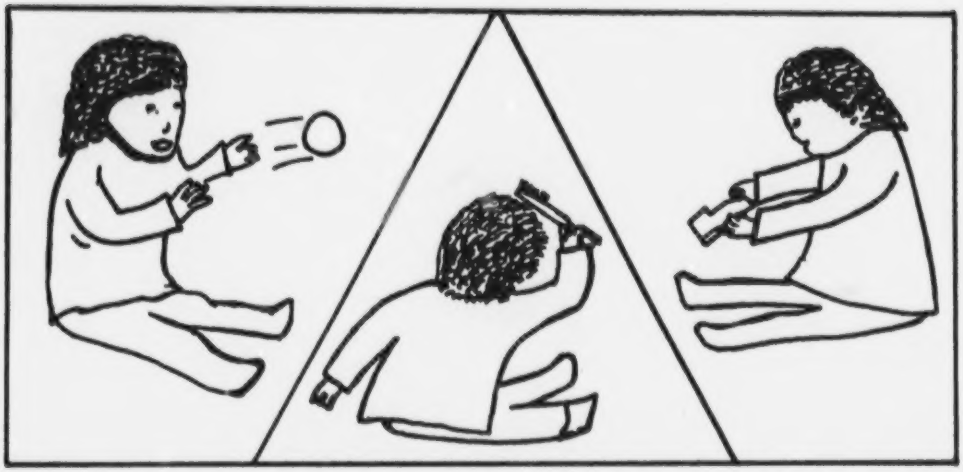


A small baby does not look for an object that falls or rolls out of sight, because if she cannot see it she is no longer aware of its existence. Later, by the age of one year, the normal baby looks for an object that has gone out of sight. She now has a mental picture of it in her mind.

To make this kind of mental picture, the child also needs to be able to tell the difference between one kind of thing and another. Give a normal baby aged about nine months a spoon, a comb, a ball and a shoe, and she will behave the same way with each of them: turning them over, taking them to her mouth, biting, rubbing them against her face, banging them on the floor, throwing them. She has not yet learnt to tell the difference between one object and another.

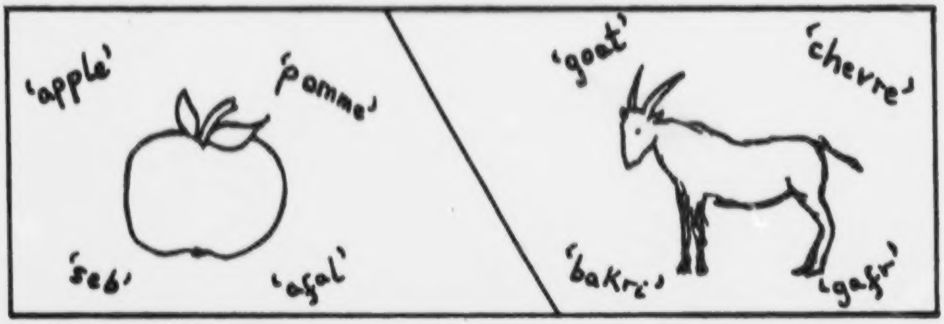


A few months later the child will take the spoon to her mouth, put the comb against her hair, throw the ball and put the shoe against her foot. She has found some differences between the objects. She is ready to learn that they have different names.



To learn to tell the difference between various objects, the child must be allowed to play with many kinds of things (not only toys):- grasping, handling them, banging them. She will discover by experiment that there are differences of feel, weight, sound, taste. (Blind babies have special problems in making mental pictures - see p.78)

In most languages, words are not obviously related to the object they represent, e.g. the word "banana" or the word "cow" does not in itself *look like* the object represented. We would not understand the word for 'cow' or 'banana' in a language we had never learnt. To speak, we must understand that one thing (or sound, or sign) can represent another.



A child can be encouraged to play with objects in such a way that *one thing represents another*, e.g. using a box as a toy car or a piece of tube as a telephone.

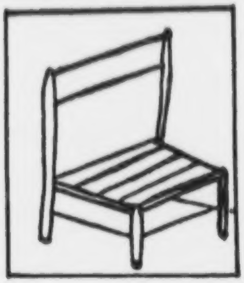
6.2 STARTING TO USE AND UNDERSTAND WORDS

Parents think their baby has started to talk when she says sounds like 'mum' and 'dada'. These are sounds that any baby makes when she is excited. Parents usually show that they are pleased with these sounds, so the baby learns to use them to get parents' attention - the baby finds them more effective than other sounds. They are not learnt like other words: the baby does not at first give them any meaning, but rather they are a way of communicating her wish for attention. A Pakistani baby's first word may be 'mum', which parents take to mean 'food'. An English baby's first word is often 'mum', understood by parents to mean 'mother'. Similarly, adults find local meanings in sounds like 'dada', 'papa', 'aba'.

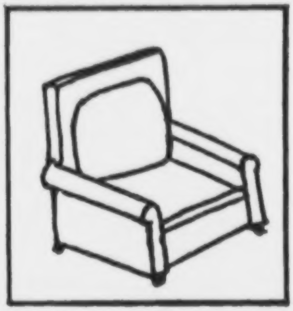
A small child next learns several words as names of particular objects, but without a correct 'mental picture' and without *generalising* the name. He may learn that his special chair is called "chair", and may point to it when asked "Where is your chair ?" or even say "chair" himself. But he does not yet know that other chairs are also called "chair", and that "chair" is the *general* word for all objects of that type and purpose. The child might be able to point to his mother's ear when she asks "Where's my ear ?". If father asks "Where's my ear ?", the child may still point to mother: he does not yet understand that father also has ears which are called "ear".

- *Growth of understanding:*

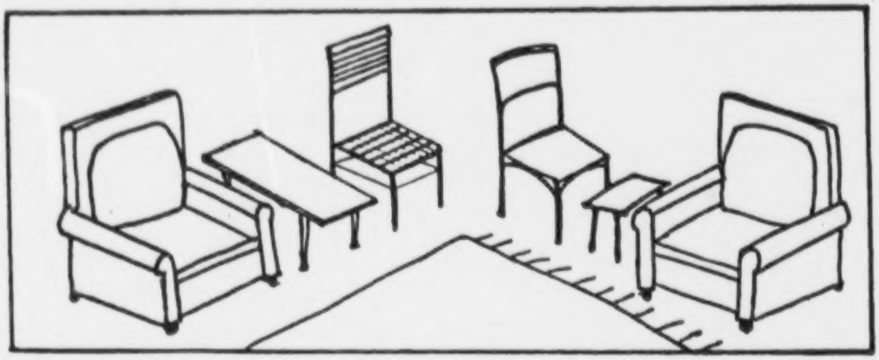
A child will have some grasp of a word before she can communicate with it, but her understanding may be incomplete, not being generalised. She recognises a word as being one that she knows, and she remembers the meaning, *before developing the ability to recall it in her own mind.* She will recognise the word "shoe" when she hears it, and may respond correctly to questions like "Where's your shoe?", before she becomes able to remember and use the word "shoe" in her own conversation. She may also be able to imitate someone else saying it.



For a pupil to use a word correctly, she needs the right mental picture of what the word means. If she is to use the word "chair" correctly she needs to know that this object is a "chair", and that the table is not a "chair". If she learns to say "chair" when her teacher asks "What is this?", with teacher always pointing to the same chair, she may not realise that *all the other chairs in the room and those*



in the next room and the armchair at home are all called "chair". She may have learnt only that she gets praise for saying "chair" in answer to a certain question.



Even though people may sit on a bed, it is not called "chair". A small table is not called "chair", even though it does not look very different. What about a stool, a bench or a sofa: are we right to call them "chair" ?

When we are teaching words to our pupils, we must use them in many varied situations, so that the children grasp the *general meaning*, not only that this word names one particular object.

1. Chair

Sit on the chair
That's his chair.
Let's move your chair.
This is my chair.

2. Shoe

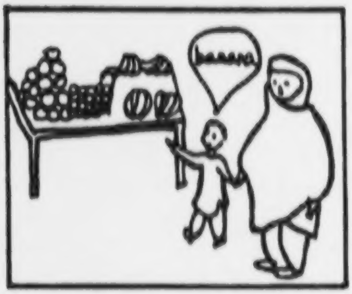
Where's Ehsan's shoe ?
Let's clean your shoe.
What nice new shoes !
Arif's got dirty shoes.

Each pupil in the class may then take turns pointing to his shoe or her chair or another named pupil's shoe.

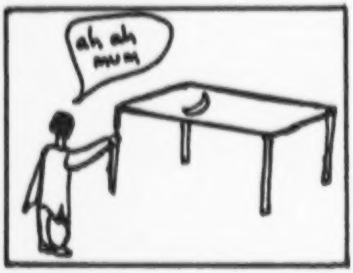
A child may learn the word 'car'. She does not, at first, know why it is called "car". Is it because this big noisy thing has a certain colour ? Or is it because of its shape or size, or because it has seats inside or because it moves ? If she thinks it is called "car" because it moves, she may use the word 'car' for any thing that moves e.g. bus, bicycle, boy running. We must expect children to make this sort of mistake until they have formed a correct mental picture by hearing the word used correctly with many different examples. (Not all children go through this stage. Mentally handicapped children may remain in it for some time).

* *There are five stages for a child to learn to communicate with a new word :*

1. Recognising the word as one which she has heard many times before.
2. Understanding (probably limited to start with).
3. Using the word imitatively.
4. Recalling and using the word without help (not always correctly).
5. Having the right mental picture and understanding of the word and using it correctly in many different situations.

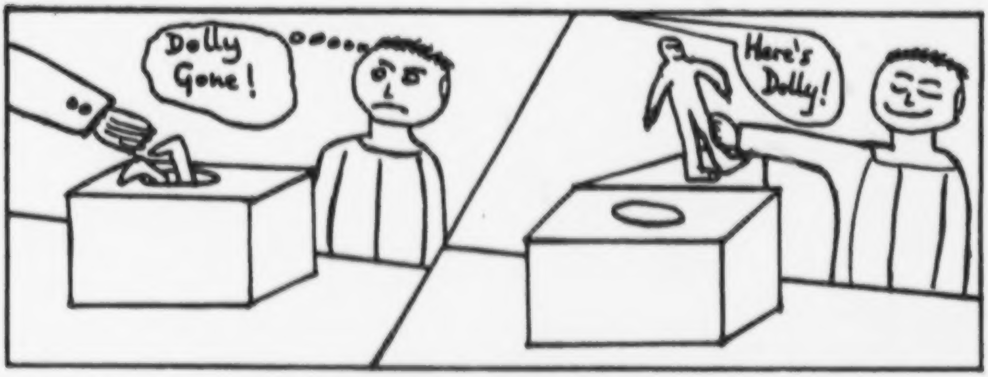


Most children use words to make *comments* before they use them to make *requests*. The child may see bananas in a shop and point and say "banana". However, if he actually wants a banana to eat, he may not be able to find the word. He may just point or use a general 'want' word like "mum" or "give". His excitement because of 'wanting' stops him recalling the exact word he needs.



A strong wish to please, or fear of failing, or shyness, may stop a child from answering the question "What is this ?", even if at other times she can use the word. Children pass through a stage of constantly asking "What's this ?", and it becomes a game that pupils enjoy playing, but it is not usually helpful to use direct questioning before the child is ready for it. It may, however, make an enjoyable group game where some children can answer correctly and others just enjoy making sounds although not really learning the words.

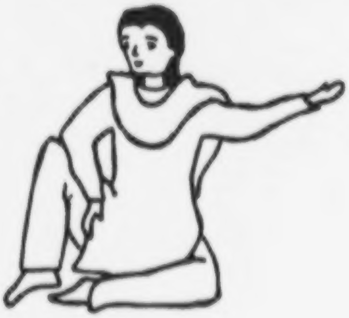
It is a good idea if the teacher can bring in new words during everyday conversation about what she or the pupils are doing, using simple sentences with much repetition. The pupil should start to imitate the teacher's words. (If he does not start, he may need to practise imitation activities or some of the other earlier stages (Chapter 5)). For example, while using an inset board the teacher may say, "Let's find the car", "Let's put the car", etc. The teacher may look at a picture book with the child talking very simply about the picture, often repeating the word she wants the pupil to learn.


Dolly Gone!
Here's Dolly!

A simple repetitive activity that many pupils enjoy is posting objects into a box, when the teacher will say "Dolly's gone" etc. - the pupil hopefully imitating - then opening up the box, saying "Here's dolly" etc. When a pupil starts to use words, the teacher should decide on a list of up to 10 words to work on for a month. She should *use each of these words several times daily in talking with the pupil* and help the child to imitate and use them. After a month, the list should be revised and new words introduced.

Be sure always to use the same word for an object: do not call the school vehicle a "wagon" one day, the next a "motor", then "bus" etc. Decide which word to use, then stick to it. Try to *discuss with parents which words you intend to teach each month with each pupil.* If the family uses dialect words at home, decide together which word to use.

IMPORTANT NOTE: It sometimes happens that parents whose child does not speak may stop talking to the child, or talk less than they do to other children, because of the child's lack of response. This is understandable, but that family is making a serious mistake. The handicapped child needs to be talked to more than the normal child, and to be given specially planned opportunities to respond, if he is to learn to talk himself. The wise teacher talks and listens to her children, describing what she is doing, what the child is doing, always encouraging the child's response. ***Parents and other family members must be encouraged to do the same.***



"THE TEACHER MUST PAY ATTENTION WHEN A PUPIL IS TRYING TO SAY SOMETHING !"

6.3 DIFFERENT KINDS OF WORDS

The child's first words are likely to belong to the following categories. When she decides which new words to teach, the teacher should choose so that the pupil is able to use some words of each kind :-

People's names	e.g.	names of family, friends, teachers.
Object names	e.g.	cup, ball, shoe, chair, cat, milk, book.
Social words	e.g.	bye-bye, yes, hello, no, don't, thanks.
Action words	e.g.	sit, eat, stand, give, go, gone, wash.
Describing words	e.g.	more, big, good, fast, red, my, broken.

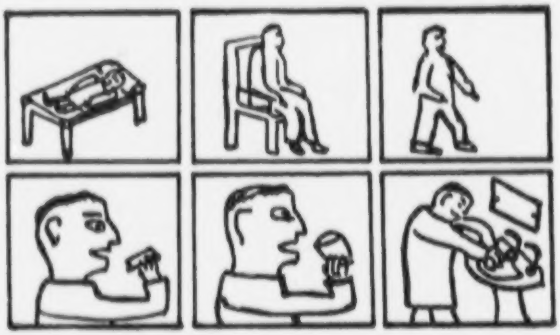
At this early stage, try not to use alternative names for the same thing, or the same word in ways that have different meanings. *[This is also a good rule when writing books, but not an easy task!]* Later on, children will begin to learn that objects may have many names and words may have many meanings. Discuss new words with parents so that the child hears the same at school and at home, to avoid confusion.

Sometimes a pupil may not wish to use a particular word because it is hard to say, or because someone laughed at him or corrected him when he tried to say it, making him shy. (This can happen to any of us, even as adults.) Do not force the child to use it, but leave it alone for a few weeks. The child may by then have gained confidence while learning other new words and so be ready to try again.

"Don't" is a very important word to understand. A pupil may *seem* to be disobedient when in fact the problem is that she has not recognised or understood this word. Then, if the teacher says "Don't get up", she understands only "Get up". In such cases always emphasise the *negative* command, so that the child clearly hears it. It helps to play group games in which the teacher or pupils in turn give some positive and some negative commands, e.g. "Stand up", "Touch your toes", "Don't clap hands", "Stamp your feet", "Don't sit down", etc.

Action words should be introduced in ordinary conversation, and in play with dolls and puppets. Games described above (teaching the pupil to understand "Don't") may also help to teach action words. Pupils more easily learn these words, and form correct mental pictures of their meanings, by playing games where they must do, or mime, various actions on request, or guess what action is being mimed.

Pictures may be drawn, or cut from magazines of people and animals doing many different things which the pupil describes and mimes. Dolls can be used to demonstrate actions (e.g. eat, sit, kick, sleep).



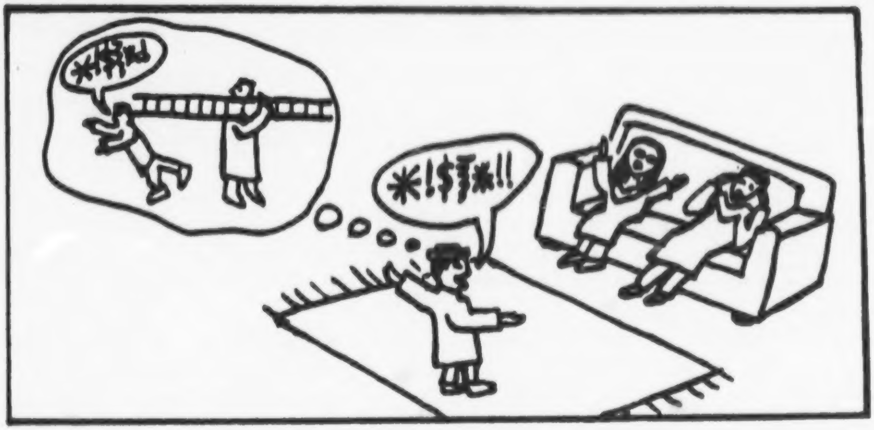
When a child first uses 'describing words', she may think of them as part of the name of a particular object or action. For example, she may talk about her "big book" because that is what she has heard it called, not knowing that 'big' has a special meaning of its own. She may have a toy car called the "red car", not knowing the meaning of 'red'. A boy may say he will "run fast" and "fall down" without knowing that 'fast' and 'down' are separate words from 'run' and 'fall'.

To enable pupils to understand these words and use them in a general way, we have to work on developing their mental pictures. (See Chapter 8).

* *Use of 'bad' words* :

Often when a child is beginning to talk he uses some 'bad' words. Children easily learn these if they hear adults using them, because adults often say these words in a forceful way. 'Bad' words may be heard in a situation where the child's attention has been drawn to what is going on (e.g. someone hitting his finger with a hammer; two people quarreling). This fixes the words more readily in the child's mind.

If we do not want the child to use these words, we should avoid using them ourselves. We should ignore them if the child or someone else uses them. The child must not get the idea that to use these words is a good way of getting attention !



We can see from this, that those words which we do want the child to learn should be spoken in a clear, emphatic way, and in situations that the child will find interesting.

7.0 FROM WORDS TO CONVERSATION

7.1 GETTING PUPILS TO TALK

Getting pupils talking is more important
than having set language lessons

To encourage a pupil to talk, the teacher must have conversations with him about whatever he is doing or looking at. Of course, the teacher must learn to speak *and then be silent*, to comment *and then keep quiet*, so that the pupil has a chance to take his turn at speaking and has enough time to get the words ready in his mind and say them aloud. The teacher should make the sort of conversational remarks or comments that encourage response, rather than giving commands or instructions.

The pupil needs to be able to give attention at the same time both to what is being talked about and to the teacher with whom she is talking. If this is difficult for her, look at Chapter 5 and practise the activities listed for interacting, looking at things together and taking turns.

The teacher should use short sentences, spoken clearly, talking about the activity the child is doing. *Full attention must be given to what the pupil says.* The teacher's reply should help to fill in missing words and continue the pupil's thoughts, reinforcing the pupil's efforts by repeating the words he has introduced.

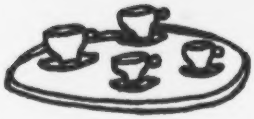
Pupils often mispronounce many of the words they use. While replying, the teacher should say the same new words correctly, but not make a fuss about the pupil repeating words. At this stage it is *more important to build up the pupil's willingness to communicate by talking.* Speech will become clearer as the child uses it more often.

The teacher may of course sometimes misunderstand what the pupil is trying to say, in which case the pupil should be encouraged to try again.

* *Child playing with toy cars*

Khurram: Brrmbrrm...
Teacher: The car is going down the road.
Khurram: Car.
Teacher: Do you go in a car ?
Khurram: Car home.
Teacher: You go home in a car.
Khurram: Mummy.
Teacher: You go home to mummy in a car.

### * *Pupil washing cups*

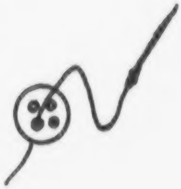


Teacher: What are you doing, Bibi ?
Bibi : Caps.
Teacher: You're washing cups !
Bibi : Wash cup.
Teacher: They're nice and clean !
Bibi : Wash clean.
Teacher: You wash them clean. Are there any more ?
Bibi : Finish.
Teacher: You finished washing the cups, good girl. Do you have anything else to wash ?
Bibi : Najma plate.
Teacher: Is Najma's going to wash the plates ?
Bibi : Yes, Najma wash plate.
Teacher: Well done. What would you like to do now ?
Bibi : Tape.
Teacher: You want to hear a tape. Let's find a tape.

* *Pupil building with lego bricks*

Khalid : This shop.
Teacher: This is a shop, is it ?
Khalid : This Daddy shop.
Teacher: It's Daddy's shop. What is Daddy selling ?
Khalid : Daddy vechable.
Teacher: He sells vegetables. It's Daddy's vegetable shop.
Khalid : Sit here.
Teacher: Daddy sits here. Where do you sit ?
Khalid : This me.

### * *Pupil sewing on button*

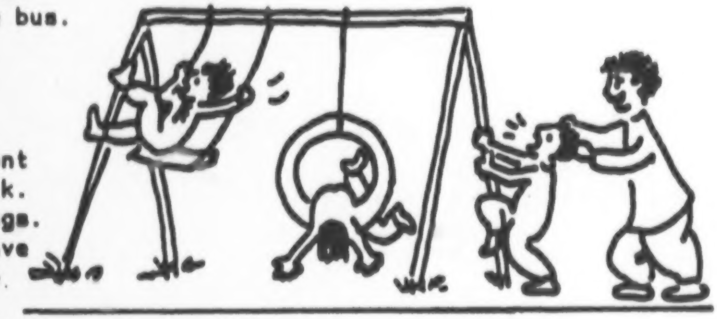


Najma : Sew.
Teacher: You're sewing a button on ?
Najma : Yes, button-on.
Teacher: You're sewing on a button ?
Najma : Yes, button.
Teacher: That's a big needle your using.
Najma : Needle, look, aooch!
Teacher: It's a sharp needle, did you prick your finger ?
Najma : Yes, finger, aoo! aoo!
Teacher: Never mind, that was last week you pricked your finger. Is it better now ?
Najma : Better now. Button now! Betternow-Buttonow! Ha Ha!!

* *Pupil playing at putting doll to bed*

Teacher: What's dolly doing ?
Bina : Dolly tire, bed put.
Teacher: Dolly is tired, so you put her to bed.
Bina : Sleep, Dolly.
Teacher: Is Dolly going to sleep ?
Bina : Dolly sleep now.

* *What did we do yesterday ?*



T'cher: Majid, tell me, what did we do yesterday ?
Majid : Bus.
T'cher: Yes, we went out in the bus.
Majid : Out, bus.
T'cher: Where did we go ?
Majid : Park.
T'cher: Yes, we went to the park.
Majid : Park, swings.
T'cher: Did you have fun on the swings ?
Majid : Swings, Salim fall down off.
T'cher: Salim fell down. Did he fall off the swings ?
Majid : No swings. Akbar push, Salim fall off down.
T'cher: Salim fell down off the swings.

* *Pupil gardening*

Teacher: What are you doing, Sajjad ?
Sajjad : Water.
Teacher: You're putting water on the plants ?
Sajjad : Water on plant.
Teacher: Are there any flowers yet ?
Sajjad : Here any-flower.
Teacher: Yes, here's a pretty flower, are there any more ?
Sajjad : Here pretty-flower more.
Teacher: Yes, here are lots more pretty flowers.

When asking a pupil a question, it should be phrased so as to encourage her to reply with more than just "yes" or "no". The teacher is trying to encourage the pupil to talk, with the pupil using as many words as possible. The teacher's tone of voice should be encouraging. The pupil's responses should be rewarded by smiles and praise. *The teacher should keep her own language simple and clear.* The pupil's spoken communication should always be taken seriously. The pupil should never be laughed at when incorrect, unless she may be telling a funny story to laugh at together with teacher.

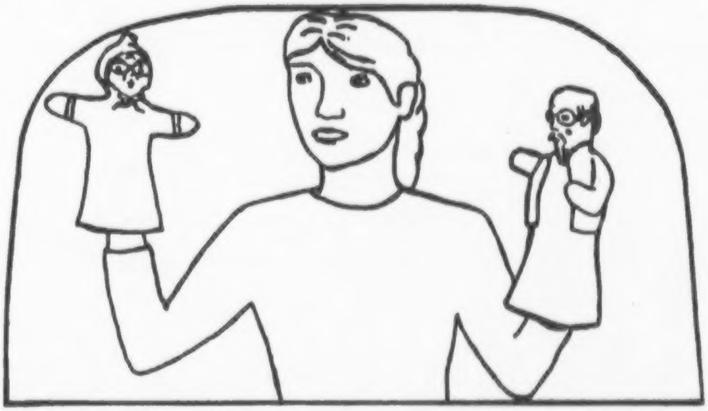
IMPORTANT NOTE: never tease or make fun of pupils by telling them the wrong answer or teaching them the wrong word for something. Stop volunteer helpers from doing so. The pupils will become confused and trust will break down. You will not be able to teach children to communicate if you confuse them. Never tell lies to the pupils. They will not trust you again and your relationship will be spoiled.

7.2 ACTIVITIES THAT PROMOTE TALKING

### * *Using Puppets*

Three ways to use puppets to encourage pupils to talk :-

1. To illustrate a story the teacher is telling.
2. The teacher may use a puppet to have a conversation with the pupil. This may be particularly useful with shy children. Some children will talk more freely with dolls or puppets than with people.
3. The teacher may use one or two puppets, and the pupil have another, both talking in the role of the puppets. The teacher may use funny voices. If she is using more than one puppet, they should have different voices.



'People' puppets can be used as well as animals. People puppets will probably talk about everyday events and activities.

Example: Teacher with duck and frog puppets, Pupil with hen:

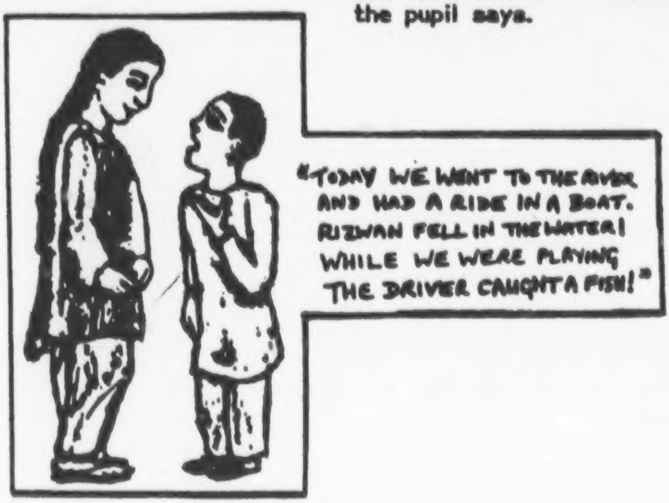
Teacher (duck) Hello Hen, how are you ?
Pupil (hen) *Fine !*
T. (duck) Has the man put good food for us today ?
P. (hen) *Yes, good food.*
(duck) Is there plenty of water ?
(hen) *No water.*
(duck) Oh, dear, I'm so thirsty, let's see if we can find some water. Ducks need water !
(hen) *Here water.*
(duck) Very good. Aah, that's better !
(hen) *Aah, good water* !
(duck) Now shall we go for a walk ?
(hen) *Go walk.*
(duck) Let's go to the well.
(hen) *Go to well.*
(duck) We'll visit Frog, he lives in the well. Hello Frog are you home ?
(hen) *Hello Frog.*
(frog) Who's there ?
(duck) It's Duck and...
(hen) *Hen.*
(frog) Hello Duck ! Hello Hen !
(duck) Hello Frog.
(hen) *Hello Frog.*

In the same way, talking can be based around play with dolls, or dramatic play of everyday or imaginary activities. [Maybe a boy would not normally play with a doll: Don't be afraid to give him one if you think he will talk with it and learn by it. Special schools are places where children can do anything that will help them learn, without anyone laughing at them.]

"PUPILS SHOULD TALK TO EACH OTHER
- NOT ONLY TO THE TEACHER -
ENCOURAGE THEM TO DO SO !"

The teacher must not expect the pupil to give a particular reply to anything she says. She should use her imagination to respond in the most appropriate way to anything the pupil says.

Most pupils enjoy outings from school, and like to talk about them afterwards. If we want our pupils to talk we must give them plenty of interesting activities, objects and experiences to talk about.


"TODAY WE WENT TO THE RIVER
AND HAD A RIDE IN A BOAT.
RIZWAN FELL IN THE WATER!
WHILE WE WERE PLAYING
THE DRIVER CAUGHT A FISH!"

- *Some more activities to encourage talking:*

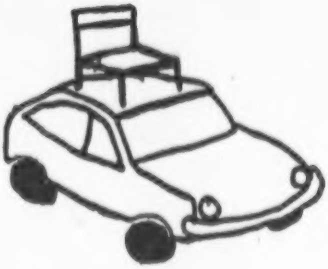
Give two identical sets of picture cards to two pupils. One pupil picks a card and describes the picture on it until the other can guess which it is. Or, one pupil asks the teacher questions about a picture (other than "What is it ?") until he can guess which picture the teacher has in mind.

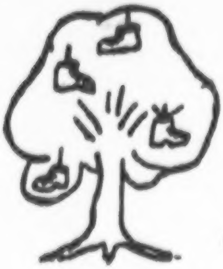
The teacher may make sets of picture cards of things which usually go together (e.g. needle and thread, pencil and exercise book, spoon and bowl, shoe and sock), which the pupil puts together in pairs correctly and then tries to explain why they go together.

The teacher may put an object in a bag, so that the pupil cannot see it but can feel it. She should tell the other pupils what she can feel, until someone guesses correctly what it is.

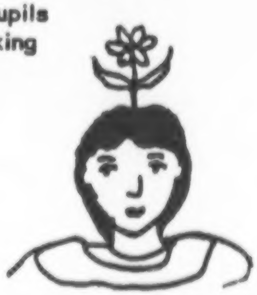
Pupils will enjoy looking at and describing some 'silly' pictures:

- woman with flower on her head.
- house with horse on the roof.
- train flying through the sky.
- boots hanging on a tree.

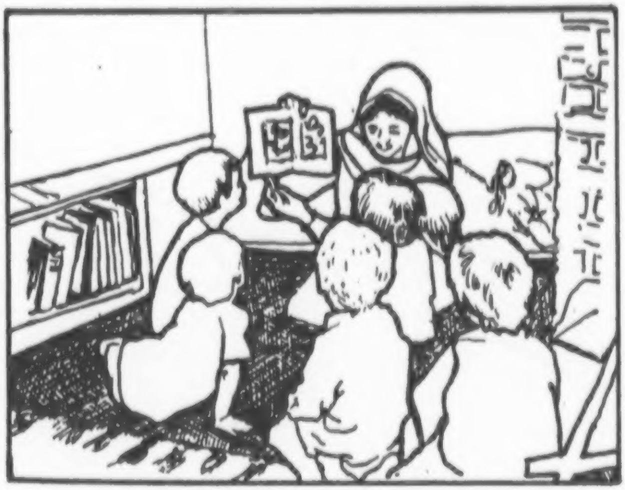




More able pupils may enjoy making up a story to explain how such a silly situation arose.

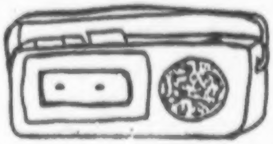


* *Stories* : If the teacher has a regular story time, it is good to tell the same story often, until pupils know it well. Then they can be encouraged to answer simple questions about it, or even re-tell the story themselves with occasional prompts from the teacher, such as "What happened next ?" or "Where did Fox go then ?" etc. Some children (especially the younger ones) may be able to listen only to very short stories (two or three minutes), but if there are many repetitions, children will join in. If there are 'funny noises' such as sneezes, animal noises etc, children will pay attention for longer. Simple pictures of the main characters in the story, held up for children to see, also help to keep their interest.



* About Me Children also very much enjoy having a simple story made up about themselves. The pupil should be given a chance to take part in making up the story: e.g. "Once there was a little boy called *Arif* who lived in a little house with his brothers. What are his brothers called ? One morning, Arif got up and had his breakfast. What did he eat for breakfast ? Then he went to school. When he got there his teacher said, "Today we will have a special treat. We are going for a picnic." Where do you think they went ?" etc.

* *Tapes* While he talks with pupils, the teacher may not easily remember and record details of what the pupil is saying and how he says it. It helps sometimes to make tape recordings of conversation. Playing it back, the teacher can listen to the types of words and sentences the pupil uses, the different messages communicated and any special problems in saying words. Using tapes also helps the teacher to know how much he himself is talking and how much the pupils are talking. (*Remember, the purpose of these activities is to help the pupils talk as well as possible* !) However, conversation practice should continue throughout the day, and it would be a distraction to try to tape-record too many conversations.

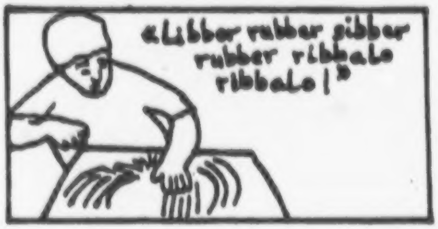


8.0 SPEECH & SENTENCE STRUCTURE

8.1 SPEECH

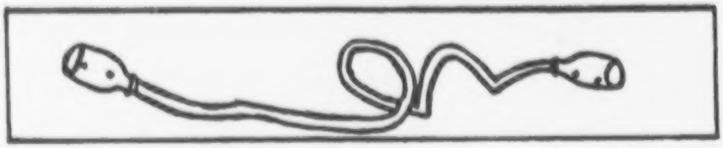
Many children who are mentally retarded have speech that is unclear and sometimes hard to understand, especially for people who do not know them well. For most pupils, the best way to improve their speech is practice. To learn language and communication skills is more urgent than to work on correct pronunciation. Mistakes in pronunciation made by mentally retarded pupils are mostly the same as those made by normal infants when they are starting to talk. So again we see that many speech problems are a result of *delayed* development rather than *abnormal* development.

The normal infant develops speech skills first by babbling, making noises to herself. She practises using her lips, tongue and throat, exercising them and learning to control them. Even when a child can use a number of words correctly, she still continues to make meaningless sounds to herself - to practise making the sounds and tune and rhythms of normal speech. This is very important. Do not try to discourage the pupil from talking 'nonsense'. Let him chatter to himself while playing with dolls, or looking in a mirror, riding a tricycle etc. Do not interrupt, unless you want him to join in a group activity. (But talking with teacher and other pupils should also be encouraged, by giving things to communicate about).


«Libber rubber gibber rubber ribbale ribbale!»

A normal child will have passed through this stage by two and a half years, but a severely retarded young person may still need to practise babbling at 12 years or older. Even a normal adult, learning to speak a foreign language, needs to practise making sounds that are unfamiliar to her.

A pupil may be encouraged to make sounds by listening to his own voice talking into a toy telephone (which may easily be made with a pair of empty plastic bottles and a piece of hose-pipe), or by talking into cardboard tubes which magnify the sound. Many children, and adults too, enjoy speaking onto a tape recorder and then hearing it played back.



Some pupils have poor speech because of *impaired hearing.* This is often difficult to treat (see p.76), but some pupils will hear more clearly simply by having their ears cleaned by a *nurse* or health worker. Do not allow anyone to poke a pencil or anything sharp into a child's ear. Pupils' ears should be checked regularly for wax or other blockages which can reduce hearing and cause problems of communication.

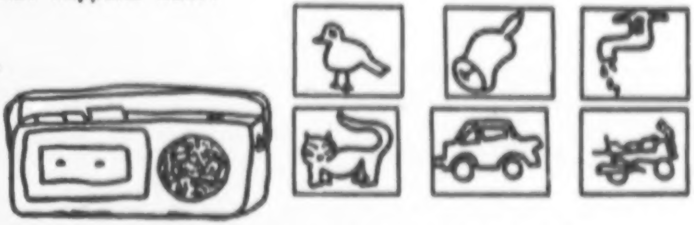
8.2 BASIC SKILLS

The basic skills needed for speech are:- *Imitation, Paying Attention, and Listening.*

- *Imitation* We all learn to talk by imitating other people. Imitation is essential for speech, as well as for language and communication. Activities described earlier will help a pupil learn to imitate. A child who has problems in speaking (but can communicate) may be helped by imitating her teacher's mouth movement and seeing her own mouth in a mirror. She may touch the teacher's mouth and throat while he speaks, and then her own when she tries to copy him. A child may be helped to speak more clearly by listening to tapes of teacher speaking and herself imitating. Working with tapes should be a fun activity - the pupil should not be made to feel that tape-recording is done only to correct his mistakes.

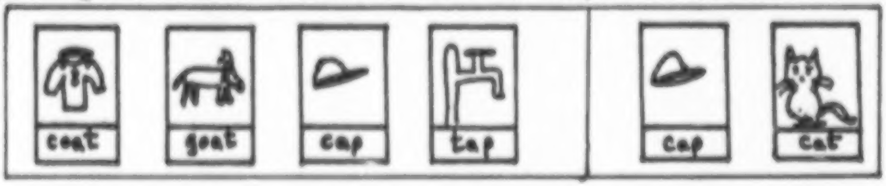
- *Attention* For a pupil to learn to pay attention, activities should be made as interesting and enjoyable as possible, based around her own interests. Rewards and reinforcers may be used to increase the length of time for which a pupil is able to give attention. See Chapter 15, which discusses ways to help hyperactive children increase their concentration; this method may also be used for other children to increase their attention span.

- *Listening* Children develop listening skills when they have stories read to them; or play games with a toy telephone where the teacher gives instructions or describes a picture for the pupil to find or draw; and games where children obey a series of orders such as "stand up", "sit down", "don't clap hands". A child may be asked to continue a story that he knows - the teacher asks 'What happens next?'



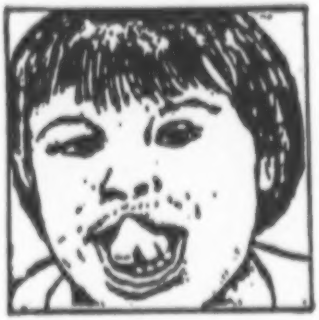
Tapes may be used of common sounds to identify or match with pictures, naming objects the pupils can see.
Games may be made involving words that begin with particular sounds.

• ***Sound Discrimination.*** **The teacher may make sets of pictures of pairs of objects whose names sound alike except for one sound e.g. dog/log, kite/fight, key/tea, cap/tap, coat/goat (in Urdu, suitable examples might be kela/mela, dal/lal, tala/kala, nila/pila, kana/khana).**



Examples should also be given where it is the last sound, or middle sound of the word that is different e.g. cat/cap, bone/boat, fire/fight (Urdu, char/chat, kan/kar, kana/kala)

• **Mouth exercises. A few children, especially those with cerebral palsy, need mouth exercises to help them speak more clearly. Exercises include chewing hard foods (meat, apple, sugar cane, carrot); blowing (e.g. puffing out candles, blowing feathers); tongue exercises (licking sugar, jam or honey from around her lips, sticking tongue in or out, trying to touch tip of nose with tongue). The child can watch herself in a mirror as she tries to make different sounds or does various mouth exercises.**



8.3 MISPRONUNCIATION & MUDDLED WORDS

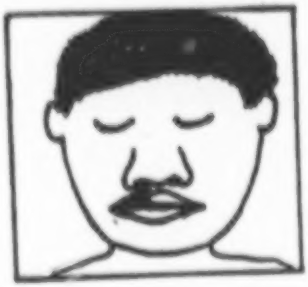
It is normal for a child who is starting to talk (or for an adult learning a foreign language) to make many mistakes in pronunciation and to get the sounds of a word in the wrong order. These problems will usually stop as the pupil talks more. If the problems continue, try to improve the pupil's listening and imitating skills. A child first needs to learn to *hear the difference between sounds*, before she can make the sounds properly herself. Use the games described above, to practise sound discrimination.

If the child puts sounds together in the wrong order, work on *sequencing* skills, such as doing a series of actions in order, repeating a series of nonsense sounds in order, putting pictures into the order in which they occur in a story. (See Section 10.5)

Some sounds are harder to make than others. Normal children often do not learn to make all the correct sounds until they have been talking for three or four years. Does a pupil have difficulty making some particular sounds ? The teacher should then use a lot of words having those sounds, so that the child slowly becomes aware of them and starts to imitate. He will improve with practice, and if necessary may imitate in front of a mirror or may listen to tapes of himself imitating the teacher. The teacher may also make and use sound discrimination picture cards as described above, using words which involve the sound that the pupil finds difficult.

AVOID CAUSING EMBARRASSMENT TO A PUPIL OVER HER SPEECH PROBLEMS. IF TOO MUCH ATTENTION IS GIVEN, SHE MAY BECOME RELUCTANT TO SPEAK AT ALL.

A few children have abnormal speech organs. A hole in the roof of the mouth, or a 'hare lip' can sometimes be treated by an operation. If the pupil cannot have an operation, and if clear speech is not possible, she may learn to use signs while speaking, to help other people understand.



'Tongue Tie' is rarely a cause of speech difficulty - if the child can suck and eat food without problems, he should be able to talk. He will gain enough movement in his tongue by exercising it, if necessary doing the mouth exercises described above. An operation on the tongue is not needed.

Whenever a physical problem makes speech difficult, the pupil should be encouraged to communicate by signs or picture symbols, in addition to speech. The sort of hand gestures that the teacher uses while talking to children, e.g. prompting, pointing, questioning signs, can usefully be imitated by pupils who need to support their speech with signs.

8.4 STARTING TO USE SENTENCES

When a child knows and uses about 30 different words, she will usually start to put two words together to form simple 'sentences'. Ten very common ways of combining pairs of words are listed below. If a pupil already puts words together, note which types of word pairs she uses. If there are some she does not use, try practising them with her.

1. person/object doing action + action word : Dolly eat, dog bite, Noshee sit, Me sew, Arif come, Mohsin sleep,

2. action + object to which action is done : eat apple, give cup, read book, throw ball, wash hands

3. social word + name : Byebye sister, well-done Rosie, Thank-you auntie, No Saleem

4. describing word + person/object/action : big box, hot tea, run fast, that book, car broke, water cold, more biscuit

5. person/object acting + object of action (action word missing) :
   Ehsan brick (*Ehsan threw the brick*)
   Arif biscuit (*Arif's eating a biscuit*)

6. owner + object owned : Ayesha shoe, Bushra pencil, Ahmed bread, my Mummy

7. person/object + place : Ahmed bathroom, Auntie kitchen, Bibi swings, Najma there, here needle, book cupboard

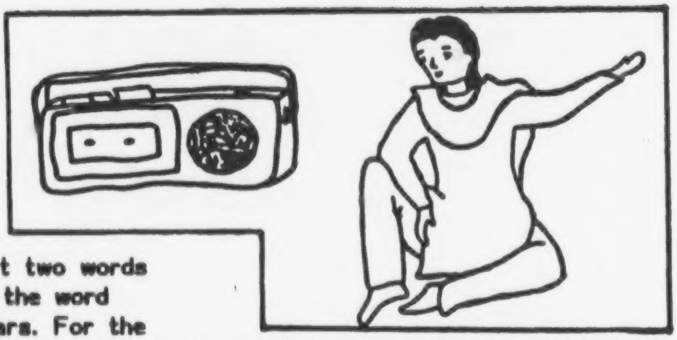
8. action + place : go bazaar, sit chair, put cupboard, take inside, come here, stand there.

9. "no"/refusal word + object : no school, no milk, no sleep, don't wash

10. question + object/action : when home? where shoe? what this? who that? where go?

If a pupil knows more than 30 words, but does not yet put two words together, look again at Chapter 7 and check whether he uses different kinds of words, or only people and object names. If he uses only names, work on teaching him some of the other kinds of words. If he can use some words from each of the five different kinds given, talk to him with plenty of examples of simple sentences of the first four types. He should soon start putting words together in the same way.

If a pupil does sometimes put words together in pairs, note which kinds of word pairs he uses. If there are some combinations he uses rarely or not at all, use examples of these while talking with him.



It is easier to observe the way a pupil talks if the teacher sometimes records on tape the pupil's conversation.

A child learns to put two words together by copying the word combinations she hears. For the child to learn how words go together, talk to her about the things she is doing. Use words that you know she understands, so her mind is not occupied in trying to work out the meaning of each word, and she will more easily learn the order of the words and how they fit together. Speak to her in simple, correct sentences. Emphasise the two more important words by saying them a little more slowly and clearly.

Use new words together with plenty of well-known ones, so that the pupil *generalises* the meaning and builds up a mental picture. Give plenty of practice in hearing how words fit together. For example, to practise word combination No.1 (subject + action word): go round the pupils while they are eating, saying "Najma (is) eating", "Arif (is) eating", "Bina is eating", naming each child in the group. The teacher should say the full, correct sentence, though at first the pupils say only the two main words.

Teaching word combination No.2, while play-washing a doll:

"(Let's) wash (her) hands,"
" wash " face
" wash " feet
" wash " hair

Using objects with names the child already knows:

"Give (me) (the) cup"
Give " " shoe
Give " " book
Give " " pencil

The correct order of words in a sentence differs from one language to another, but the method of teaching is the same. The teacher will of course teach the correct word order for the pupil's own language.

As well as learning the way the words go together, the pupil should also pick up the *intonation* of his language, the way the voice moves up and down while saying words. He should pick this up from hearing people speaking naturally to one another.

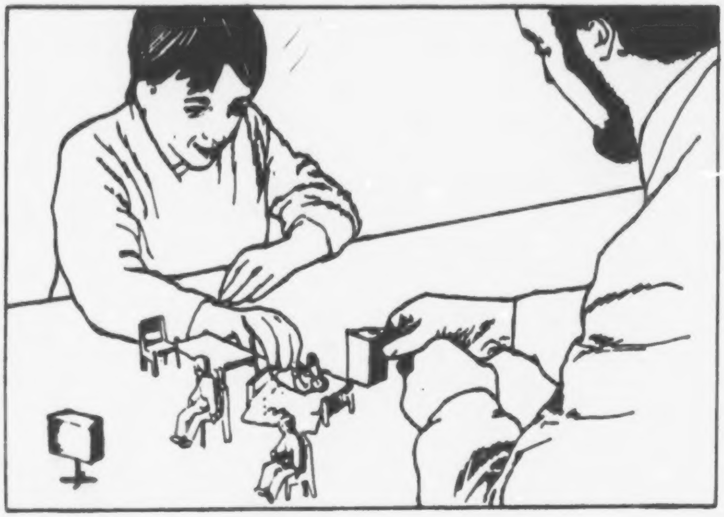
8.5 MORE MENTAL PICTURES

In Section 6.1 we looked at how a child forms a mental picture of the meaning of a word, when the word is the name of an object. Mental pictures are formed also with action words, describing words and so on.

Activities which help pupils to form mental pictures of action words :

a) Playing games where the pupil does or mimes various actions on request, or guesses what action someone else is miming.

b) Pictures of people doing various actions which the pupil can describe or mime. Dolls can be used to show various actions e.g. sit, eat, kick, sleep.



Describing words: e.g. colour words, size words. When a child first uses describing words, he thinks of them as part of the name of a particular object, and does not understand the word's own special meaning, e.g. a child may talk about her 'big book' or his 'red car' without knowing that 'big' and 'red' have meanings of their own apart from the meaning of that particular car or book.

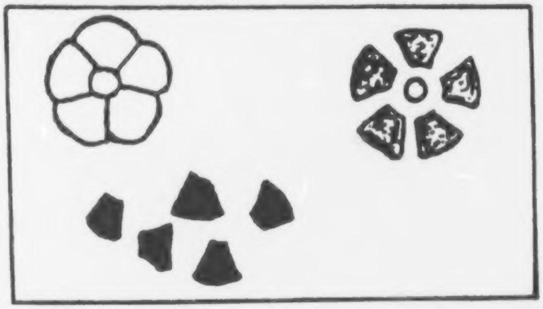
It is best to concentrate first on developing the child's mental picture, without expecting him to use words or testing his understanding of words. If he is expected to use the words in a general way without a correct mental picture, he may use them incorrectly and become confused.

* *Colours.* At first a pupil should learn to match objects of the same colour and sort out a mixture of coloured objects, without using the colour words. He needs to learn to recognise the difference between the colours, to perceive the 'redness' of red objects and the 'yellowness' of yellow objects etc. Until he can do this he will only be confused by being made to learn the names. He will not know what quality he

is naming, and if asked to name colours will give wrong answers and become discouraged.

Many games and activities can be made up to teach colour awareness and discrimination. Sets of clothes and accessories (shoes, bag etc.) can be made for dolls in matching colours, so that one doll has all red things, another all yellow. Each toy car can belong to a garage of its own colour, travelling across a board on a road of its colour.

Board games can be made with squares in different colours (using 3,4,5 or 6 different colours). Pupils use dice that have colours instead of numbers on the sides. They move their counter to the next square of the colour shown. Flower games: putting together a flower from wooden or cardboard petals of the same colour, can be a sorting game for one pupil or a game with dice for several pupils to play.



The above activities can help the pupil become more observant of colour and help her to see and think about colours. When the pupil can match colours, the names of the colours can be introduced by the teacher, starting with naming two colours, and not using the other colour names until the pupil knows the first two.

If a pupil finds it hard to tell one colour from another, teach her first to sort red and white (or black and white). A pupil who cannot see any difference between white from red would have a major visual problem, not just colour blindness. Blue and yellow may then be introduced. The most common sort of colour blindness is an inability to tell red from green; so these two should never be the first pair of colours taught. Normally red and blue, red and yellow or red and white are good to start with. *(In Urdu, do not start with red and yellow - the names 'nila' and 'pila' can easily be confused).*

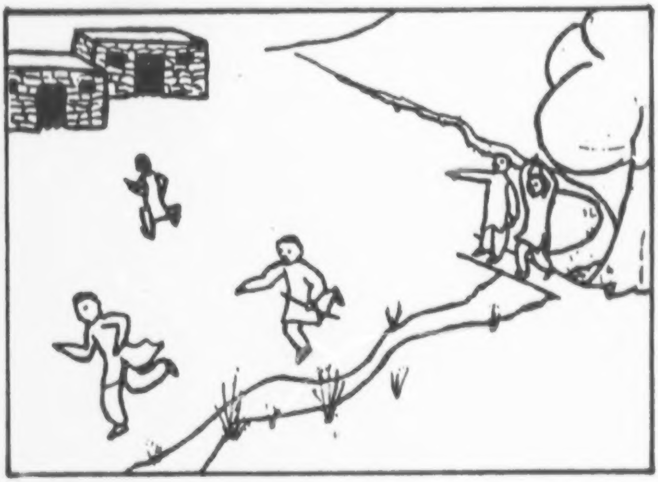
Most pupils are interested in activities involving food, so this can be combined with colour learning games. When teaching red and white, use sliced tomatoes and radishes, or red jelly and icecream, or milk and pomegranate juice, to keep the pupils' interest. Small coloured sweets may be used, and the pupil may eat one if she names its colour correctly.

- *Size* e.g. big and small, long and short, fat and thin. Help pupils understand these words by sorting and matching 'big' and 'small' objects etc. (See also Sections 11.5 & 11.6). Make picture collections of big and small people, long and short objects, fat and thin animals. Food may also be used: long and short carrots, big and small apples etc. The teacher should use her imagination in finding suitable games and activities for developing these mental pictures.

- *Moods* e.g. Happy, sad, tired, angry – show pictures of people laughing, crying and other expressions, get pupils to talk about them, to describe how the moods may have arisen, to mime or act different moods and feelings, say how they feel at different times e.g. when praised by teacher, quarrelling with brother, being told off by teacher/father, going out for a day's outing, being called bad names by boys in the street, being complimented on smart appearance, etc.

- *Touch and feel* e.g. Hot/cold, hard/soft, rough/smooth: Pupils should feel and touch appropriate items, match them with eyes blindfolded, talk about various kinds of things that feel different to touch.

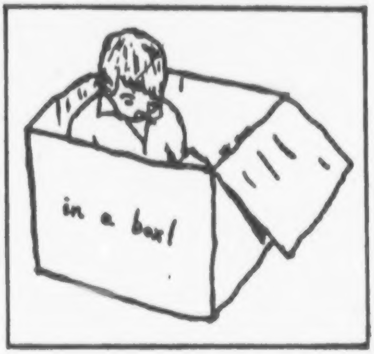
Words such as slow/fast, gentle/rough, high/low can be included in movement and physical activities. In some places, traditional children's games can be used. For example, a game called *'oonch-neech'* (high-low) in which *'oonch'* (high) places are said to be safe while *'neech'* (low) places are unsafe. The child whose turn it is to catch others may catch them only when they are on *'neech'* areas. Children avoiding capture can take rest for a few seconds only on an *'oonch'* place.



Up/down, in/out, behind /in front: these pairs of words are important for a pupil to learn if he is to obey instructions and understand what people say. If a pupil is told to put a cup in the cupboard but instead puts it under the cupboard, people may think he is naughty, when in fact the reason for his mistake is that he does not understand 'in' and 'under'. A pupil can learn that bricks are put in a box, or can be tipped out of a box. He can put a box on some bricks. He can put bricks under a box, or behind, in front of or beside it.

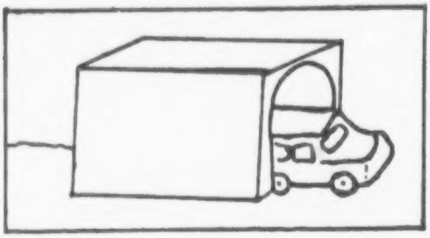
The pupil should get her own experience of some of these words:- on the table, under the table, in the cupboard, behind the chair. If a large box or carton can be found the child can climb in the box, out of the box etc. Games like this can be played with a group of children, where the first one who names a child's position correctly takes the next turn to go *in, behind or under* something. Or all the pupils put themselves *in, on, under or behind* something when the teacher gives the word.

With individuals or small groups, concentrate on a pair of opposite or contrasting words (e.g. *in and out*) until the pupils use them correctly, then move on to another pair (e.g. *on and under*).



Up and down can be introduced to a small child by lifting him up - saying 'up' and swinging him down, saying 'down'. *In and out* can be introduced by putting a favourite toy into a box - saying 'in', then lifting it out, saying 'out'.

Other suggestions for games: a doll or other toy can be put on the cupboard, under the table, behind the box etc. The teacher then tells the pupil where the object is, and she must find it. When the pupil is used to hearing these words, she herself should say where the toy is, or the teacher may place a toy somewhere, and the pupils must describe where it is. The first pupil to describe correctly, places the toy the next time.



Play with a toy car and tunnel, the car going *in and out and through* etc. Stories may be told about a mouse who lives in his hole, runs under the chairs, inside the gas heater, sits on the table etc. Stories can be illustrated by using models or by showing pictures. Picture cards can also be made for pupils to describe.

8.6 MORE ABOUT SENTENCES

When a child starts putting words together, she uses only two words at a time and her meaning is often not very clear. If she says "Arif ball", she may mean "Arif's got a ball", or "Arif's taken my ball" or "I want Arif's ball", or "Where is Arif's ball?", or several other meanings. We try to guess from the situation what the pupil means when she says "Arif ball".

After they have used two words together for a while, we expect our pupils to start putting three words into sentences. This makes their meaning easier to understand, and helps them to express more complicated ideas.

After a while, when a pupil puts together the main words of a sentence, she starts to use the 'little' words, like 'in' and 'on', 'with', 'to'. These words, and the order in which they are placed, are different from one language to another. There is no mental picture of words such as 'but', 'the', 'as', 'is'. Children pick up their use and function by hearing them used in conversation. If a pupil makes a mistake in using them or in word order, simply repeat a correct version of what she said, in an ordinary conversational way, not making a fuss over the mistake.

As well as learning to use these little words, the child will start to make some of the changes that occur in the words themselves to express different meanings, e.g. plurals, changes for masculine and feminine gender, polite forms of words, ways of expressing past and future.

The degree of difficulty, and so the order in which children may learn these various features, differs from one language to another. In most, plurals are one of the easier changes of word form, and so one of the first changes children learn.

Children learn to use more complex language by imitating what they hear. So the teacher should take note of every pupil's level of language use, and speak to each one at a level slightly more advanced than the one the child is using. The child will be able to *understand* a level a little higher than the one he can *use* when talking himself.

When teaching pupils to modify words, e.g. teaching plurals, the teacher should use many examples in her own conversation. The pupils may also be told simple rhymes or taught simple songs to illustrate the point:

- Amir went to fetch 1 dog, fetch 1 dog, fetch 1 dog,
  woof!
- Jani went to fetch 2 dogs, fetch 2 dogs, fetch 2 dogs,
  woof! woof!

- Bina went to fetch 3 dogs, fetch 3 dogs, fetch 3 dogs,
  woof! woof! woof!

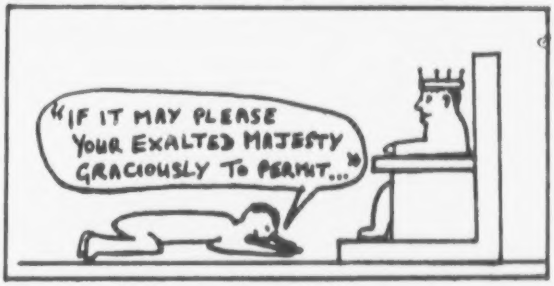
- Asif went to fetch 1 cat, fetch 1 cat, fetch 1 cat,
  miaiow! etc.

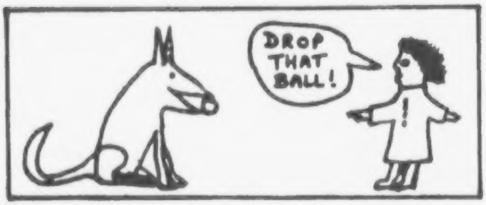
* *Hice and Mouses ??* Children can easily make mistakes with new forms of words, especially words that change in an irregular way. English-speaking children who know about 'house' and 'houses' are likely to say 'mouses' instead of 'mice' ! The child has found a 'rule' of language, but does not know which words fail to keep the rule. Don't be impatient or laugh at pupils for making this sort of mistake, which is very common. Simply repeat their sentence using the correct form of the word every time they make the mistake. Try to make up a song or rhyme using the correct form, so that other pupils may avoid making the same mistake.

8.7 MORE ADVANCED SKILLS

Normal children continue to gain more language skills up to the age of 12 or more. In the same way, we should help special children to go on learning more language skills, *long after they have gained enough for everyday communication.*

Every language has many different ways of asking questions, of asking permission, and many ways in which uncertainty may be expressed (perhaps or maybe....), and ways of making requests or giving orders with different degrees of politeness or different levels of expectation.


"IF IT MAY PLEASE YOUR EXALTED MAJESTY GRACIOUSLY TO PERMIT..."


DROP THAT BALL!

A child who has for many years understood "the girl hits the boy", may misunderstand who did what, when told "the girl *was hit by* the boy". The 'active' and 'passive' forms of action words can be taught while playing with dolls or puppets, talking about pictures and in various games.

Ways of expressing necessity "I must...." may be quite complicated. Conditions: "If this happens do this, but if that happens then do that" are hard for many children to understand and to express correctly.

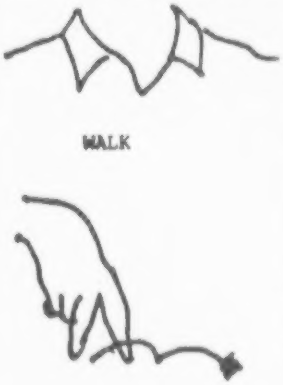
Pupils can be helped to develop their understanding and use of more complicated sentences by a carefully designed and graded set of reading books, which slowly introduce new sentence structures. These can start from simple two or three word sentences. The child will also benefit by expressing herself in a written form - either writing words or displaying word cards or using a symbol language (See next Section).

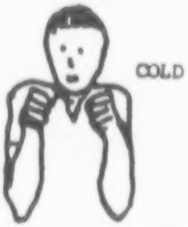
9.0 SIGNS, SYMBOLS & ABNORMALITIES

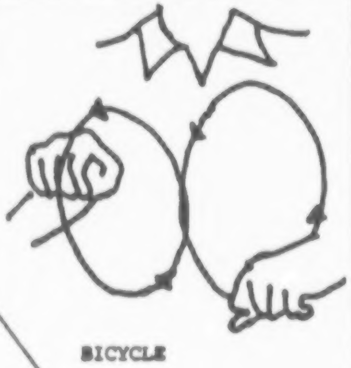
9.1 SIGN/GESTURE LANGUAGES

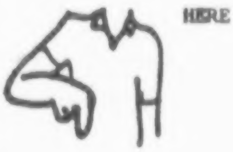
Sign/gesture or symbol/picture languages may be used with children who cannot learn to speak clearly because of hearing problems or abnormalities of their speech organs. These sorts of language may also help communication with pupils who are unwilling to talk, or who find it hard to start.

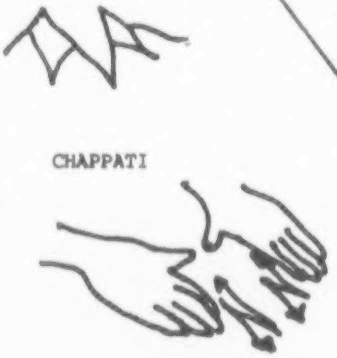
Sign/gesture languages have been developed in great detail by deaf people. They have also been used for hundreds of years by some religious communities that keep silence. Now sign/gesture language is often taught to mentally retarded children and adults who are very slow in learning to talk; also to children and adults who are unable to talk for a variety of reasons. Some pupils who previously made no progress towards speech may begin to talk after they have learnt to communicate using signs.

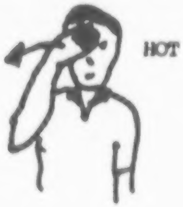












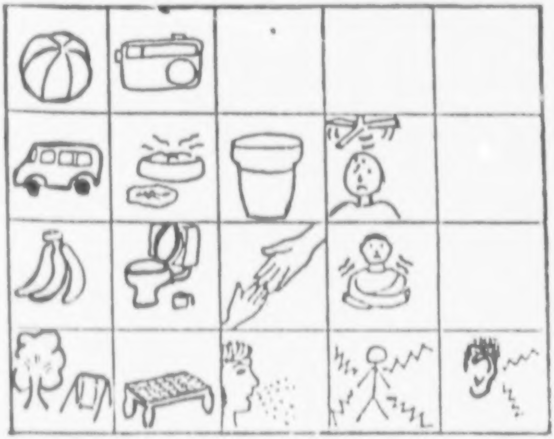
When teaching pupils to communicate with signs, follow the same sequence of skills as when teaching spoken language. First a pupil should be taught signs for the sort of things for which a child uses his first words (Chapter 5). The pupil should also be helped to develop 'mental pictures' in the same way as the child who is learning to speak (Chapter 6).

When the pupil knows 30 or so words, he will start putting signs together into 'sentences', just as the speaking child puts words into sentences. As the speaking child learns the correct order of words in a sentence, so the signing child learns the correct order of signs. Advanced sign languages contain all the features of spoken language, including ways of expressing plurals, past and future tenses etc.

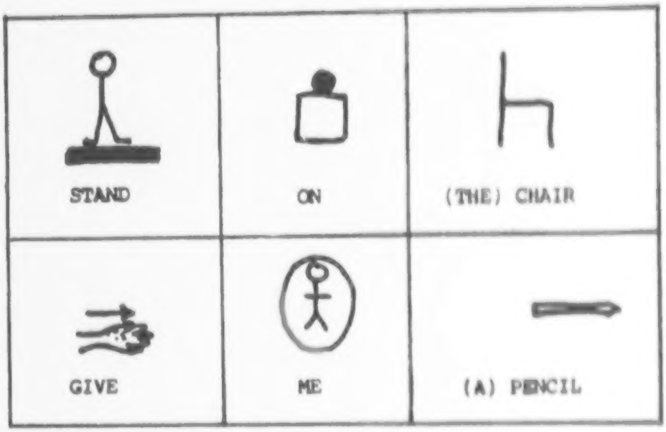
All the activities for teaching language in this book can be used to teach sign language instead of spoken language, if for any reason the child has special difficulty with speech. If the teacher uses the words at the same time as the signs, the child will also be learning to listen to the words and other pupils will follow the 'conversation'. Parents too should be helped to learn to use signs.

9.2 SYMBOL/PICTURE LANGUAGES

A symbol language may be the only communication form open to a pupil who is so physically disabled that he can neither speak nor use his hands to make clear signs. Other pupils also can make progress in communication using symbol languages. These may also be used to teach reading. A simple picture is easier to 'read' than a written word. It helps the child understand that he can communicate by marks on paper. Normally he will enjoy doing so.

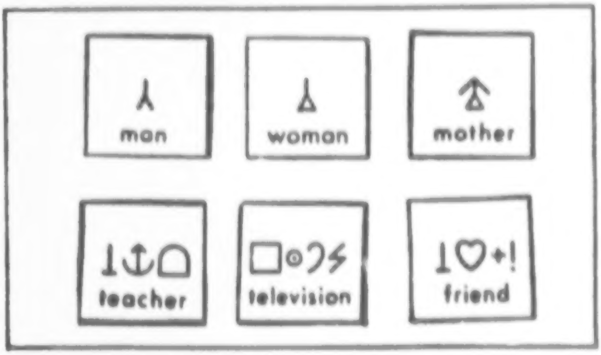


A pupil should begin by by using a board with several pictures drawn on it. He can then point to the picture symbolising whatever he wants to communicate. If a child can handle cards, he may have a set of picture cards and pick out the right picture that he wants to communicate.



Picture cards may be made with the word under the drawing so that people not used to the picture systems can easily understand what the pupil is communicating - and also the pupil may start to connect the written word with the picture, and learn to read the word alone.

A picture language that has been widely used in some countries is called 'Blissymbols'. These symbols are abstract - they do not directly 'picture' what they are supposed to represent. They build up to being quite complex. This system has been found very useful in work with children who are severely physically disabled. Some of the Bliss symbols are shown in the box :-



Pupils should learn many different symbols and how to put symbols together, just as normal children learn words. They will pick out cards and lay them in order to make sentences, in the same way that other children learn to make spoken sentences. Picture languages can have all the grammatical features of spoken language.

Pupils who can draw pictures for themselves may write messages in picture languages.

9.3 ABNORMALITIES OF LANGUAGE DEVELOPMENT

- *Hearing problems*

Many children who are mentally retarded also have impaired hearing. It may be a temporary problem arising from catarrh or recurring ear infections whenever the child has a cold. Or it may be permanent mild hearing loss through chronic catarrh, or more serious hearing loss through abnormalities of the ears.

Where diagnostic services are not available, children with *hearing loss and normal mental ability* are sometimes wrongly thought to be mentally retarded. This is more likely to happen if they have some physical disability or emotional/behavioural problem in addition to the hearing loss.

- *Testing.* If there is any reason to think that a child's hearing may be impaired, her ears should be examined by a specialist and her hearing ability should be tested. If there is no audiometer, simple tests may be done in a *quiet* room. One person shows the child some interesting objects, while watching her face. Another person behind the child's back makes a variety of sounds at intervals, to the right side and the left side, e.g. saying the child's name, hissing, clinking pencil on cup, knocking on a wooden table top. The observer notes whether the child turns her eyes towards the sound, or shows any sign of having heard, and whether her left or right ear seems more able than the other.

Hearing loss or defect does not mean that a child is *totally deaf.* Normal people have different sensitivity to sound. Some people hear only a little less than normal. Some people have to listen carefully to understand speech. Some cannot hear speech at all, but they may hear traffic noise, drumbeats etc. and feel vibrations. A very few people have profound hearing loss - they hear only very loud noises or nothing at all. Many deaf people hear ringing noises in their ears, which makes it hard for them to follow other sounds such as speech.

A child with a mild hearing loss should be encouraged to look closely at anyone who is speaking to him. He should have plenty of conversation practice and activities to practice imitation, attention and listening (see Chapters 6, 7 & 8).

- *Sound frequencies.* Some deaf people can hear some kinds of sounds quite well, but not others. Different sounds have different 'frequencies'. High musical notes and whistles have 'high frequencies'. Low, dull or rumbling sounds have 'low frequencies'. Some people cannot hear high frequency sounds, but can hear low frequency sounds quite well. Other people have low frequency deafness.

Normal speech includes some high frequency and some low frequency sounds. Vowel sounds (aa, eee, oh, oo, etc.) are quite low in frequency. Some consonant sounds are high (k, p, t, ff, s, etc). A child with *high frequency deafness* might be able to hear only the vowel sounds of speech, which are not enough to tell one word from another. She might learn to recognise often-repeated words, such as her own name, from the pattern of vowel sounds. Because of this, her family may even refuse to believe that she has any hearing loss. In fact, such a child needs specialised help to learn to understand speech and to talk normally.

- *Hearing aids.* Some people with hearing loss can be helped by using hearing aids. Aids should be fitted only by a trained person, after careful measurement of hearing ability on an audiometer. The ear piece should fit closely. It will need to be changed regularly as the child grows. The hearing impaired person or her family must learn how to maintain the aid and check whether new batteries are needed.

If a deaf child is to use a hearing aid, the younger he is when he receives it, the more he is likely to benefit. Babies under one year old can be fitted with hearing aids. The older the child, the more difficult it is to teach him to understand speech. However, some children cannot benefit from hearing aids because of their particular type of deafness.

- *Communication.* The deaf person's greatest need is to have a way of communicating. A pupil with severe hearing loss should be taught to use signs. His family should be encouraged to use signs with him. Symbol languages may also be useful. If a child has no way of communicating, and nobody tries to communicate with her, she is likely to feel isolated and frustrated and may develop emotional/behavioural problems.

Keep talking to deaf children, even while using sign language. They may hear something, and they should realise that other people communicate by this means. They may become interested in learning to lip read and in trying to speak themselves. They should be encouraged to look at whoever is speaking, to pick up non-audible signs, 'body language', which plays quite a large part in normal communication.

Parents of a deaf child often think that there is something wrong with their child's tongue because he does not talk. They do not realise that the child cannot speak because he does not know what speech is. This should be explained to parents, otherwise they may take their child for tongue operations, which are distressing for the child and very seldom bring any benefit. If a child loses his hearing *after* he has learned to speak (through illness, accident or a degenerative disease) he should still be able to talk, because he already knows speech.

Families are often puzzled if their child can hear some sounds but not others, e.g. having a moderate hearing loss which enables him to hear loud noises but not to understand speech; or a high frequency hearing loss, where they know he hears some things, but is unable to talk. *It is important to help parents to understand their child's condition.*

It is also important to know how much can usefully be done by "common sense" actions, without any cost. The child who cups a hand behind the ear may hear more, and also lets other people know what the problem is. Many children with hearing loss have one ear better than the other - it is good to speak to that side of the child's head. Having a quiet room (padded door, windows shut, away from traffic), or keeping down the level of general noise (radios, echoing floors, walls and ceilings, traffic) gives the child a much better chance to use whatever hearing ability she has.

• *Blind children and communication*

As with mental handicap and hearing impairment, there are many levels of blindness or visual impairment. Very few children can see nothing at all. Some children can distinguish light and dark, and perhaps some dim outlines. Some children can see small things if they hold them close to their eyes, but can see nothing further away. Some children have more sight in one eye than the other. There are also other variations.

A child who is blind or has very *low vision* from birth, or by the age of a few months, will often have problems with communication. Many normal forms of communication with small babies involve sight: smiling, making eye-contact, peeping games etc. The blind child who has missed these early experiences may have problems in relating to people. Parents, brothers and sisters may also be unsure how to relate to the blind child, and how to talk to him about things he cannot see, or sees with great difficulty.

Blind children find it hard to form 'mental pictures', because they cannot see things to form visual pictures. If a blind person is to form the right mental picture of a horse, he needs to touch it, feel it, get some idea of the size and shape. Otherwise the word conveys no meaning. It connects only with the 'clip-clop' sound he hears sometimes, giving no idea of what makes the sound. A blind child may start by getting an idea of a kitten, stroking its head, finding four legs and a tail. From this, the idea of other animals may be built up.

Some blind children speak quite fluently, but their speech is copied from what they hear other people say - they may have little idea of the meaning. These pupils need help to understand the words they use. If a person loses his sight at a later age, when he already has speech and language skills, he should have no special problems with language. He will still find it hard to understand new words for things, actions or qualities that he has never seen.

### * *Stuttering*

Many children go through a short period, some time between the ages of about three and five years, when they very much want to express their thoughts but cannot coordinate their speech quickly enough. This results in *a difficulty in speaking words fluently*, known as 'stuttering'. Most children soon return to normal speech patterns, but some continue to find it hard to coordinate speech. They continue to stutter for a longer period.

Sometimes there is a physical (neurological) reason for it, or it may result from the child becoming self-conscious after hearing comments about his stutter. This makes him worry and so the difficulty continues longer. Stuttering is often linked with fear and worry. Even when there is a physical cause, it will be made worse by worry.

No Fuss ! For small children who stutter it is important to avoid making them worry about the stutter, and to help them to communicate freely in spite of the problem. *What they say* should be given more attention than their *difficulty in saying it.*

Stuttering may also arise as a result of worries caused by other language problems such as difficulty in remembering words, making sentences or pronunciation. In these cases the pupil needs help to *overcome the language problem.*

In children over the age of ten years who have been stuttering for several years, a fixed pattern of stuttering is likely to develop. It is most important to try to reduce the child's anxiety. It may help if she can tell a sympathetic listener how she feels about her problem.

Relaxation exercises may be used, or attention training so that the child pays more attention to the person with whom he is speaking, rather than worrying about his own speech. With older children and adults, whose pattern of stuttering is fixed, exercises may help such as speaking slowly or breathing deeply - this gives the person something to think about so that he has less time to worry.

Some stutterers have been helped by learning to use a sign language at the same time as speaking: they sign each word as they say it. Another method which is sometimes effective is to tell the stutterer to produce a deliberate rhythmic stutter. This makes the stutterer feel in control of his speech.

Never comment on a person's stuttering: to do so may make her more anxious, and the stutter will become worse. Do not tell a stutterer to repeat a sentence or word that he has found hard. Let him repeat sentences that he speaks without difficulty, to build up his confidence.

- *The child who makes no sounds*

If a child makes no sound at all, the teacher should encourage him to make noises by whatever means possible, e.g. tickling him until he laughs. His hearing should be tested, although a lack of response to sounds may be a result of emotional problems rather than deafness.

If a child can hear, he may join in *singing* before trying to speak. He may join with other children imitating animal noises etc. Teach a sign or symbol language for communication. Keep talking to the child even if he does not respond with speech.

Find out whether the child ever speaks at home.

- *The pupil who speaks at home but not in school*

Many pupils do not speak when they first come to school, through shyness. If this lasts more than 2 weeks, the teacher should make an effort to find out why. Try to develop a close relationship with the pupil, to talk to her about her home and family in the same dialect as the family use. Ask the child's mother or a close relative to come to school daily. The child may then start to talk to her relative in school, and then to the teacher when child and relative are all together. The pupil may start talking to the teacher if she visits the home.

- *The pupil who talks too much*

Some mentally retarded pupils talk all the time. There may be little meaning in what they are saying, but they repeat phrases and sentences they have heard. These pupils usually need to develop their interaction and listening skills (Section 5.6 and 6.2), and they may need help in developing 'mental pictures' (Sections 6.1 and 8.5). Note what sort of messages they try to communicate, if any. It is best if the teacher ignores meaningless chatter, but she should pay attention as soon as the child is really trying to communicate something.

- *The pupil who hears and understands spoken language, but has not herself learnt to talk*

This pupil should be taught to communicate with signs, while being helped to learn to talk. She needs to work on imitation, attention and listening skills. (Chapters 6, 7 & 8).

Memory skills may also need to be developed. A set of picture cards may be used. Two are placed face up, the pupil looks at the pictures, then they are turned over. The pupil is then asked which card has e.g. the tree, the cat. The number of cards can be increased, and various games can be played. If this type of game is difficult for the pupil, three or four boxes may be put on the table and a toy placed in one of them while the pupil watches. The pupil looks away for a few moments, then says which box has the toy.

These pupils may be helped by using a special sign language called *Cued Speech*, where the hand gestures accompany sounds (rather than representing words, as in usual sign languages). If the pupil is intelligent enough, learning to read may help her to become more aware of the sounds which make up words, and help her to learn to talk.

- *Mispronunciations, muddled words:* See Section 8.3.

- *Abnormalities of speech organs:* See Chapter 8.

- *The brighter child with problems in saying words*

Children who find it hard to learn to talk, but who are of normal intelligence, may attend a school for mentally retarded pupils because no other school is available. For them, work on imitation, attention and listening skills is very important.

These children are likely to be aware of their speech problem. They can more often be helped to overcome their difficulty by imitation of words and sentences. When a child is trying to imitate, always be positive, praising when the child succeeds. If she is unsuccessful, never tell her that she is wrong, or even 'nearly right', as she may become discouraged.

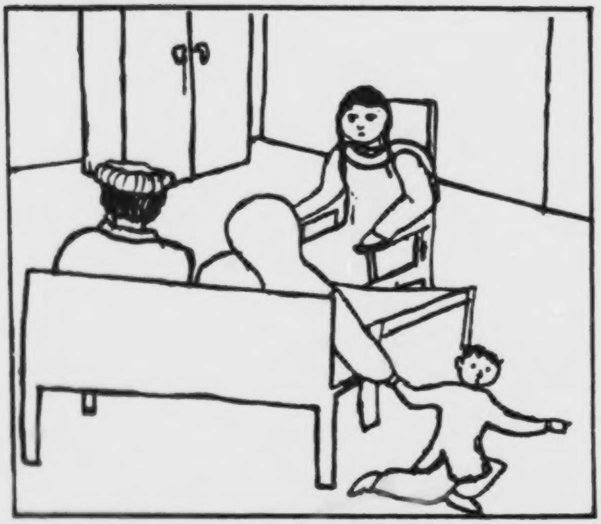
Sequencing activities also help these children, such as learning to repeat a list of numbers, words or nonsense sounds in order; putting a series of pictures in the correct order for a story; carrying out a sequence of actions in order.

Learning to read may also help these children to talk more easily, especially if they are helped to think of the letters as representing sounds.

### * *The pupil whose family speak a different language from that used in school*

If possible a child who is mentally retarded should first learn to speak the language used by her family at home. While learning to talk, if she learns one language at school and hears a different one at home, progress will probably be slower and confusion may result.

If the family use one language for their handicapped child and another among the rest of the family, the the child may feel separated and left out when the family talk together. Good contact between school and home is necessary to avoid problems.



When a pupil has begun to talk in his home language, he will then start to pick up naturally from the other pupils some words of the other languages in use in the school.

Some mentally retarded children seem to start quite easily to use words from more than one language. Once they have formed a 'mental picture' they can easily switch from one word to another. Yet these pupils may later find it hard to use either language correctly. They may mix up words and grammar from the two. Other children are seriously confused by learning more than one language at a time.

If necessary, a family member could be asked to attend school with a child whose home language is unfamiliar to the teacher.

9.4 TEN RULES FOR THE TEACHER

1. Encourage pupils to communicate/talk whenever possible and make communication enjoyable. Arrange appropriate, interesting experiences so that the child has something to say and wants to say it. Encourage pupils to communicate with each other as well as with the teacher. Learning to talk is FUN, and the pupils should be able to enjoy it.

2. Pay attention whenever the child is trying to say or communicate something. Respond appropriately to his or her communication.

3. Help pupils to understand and build up mental pictures, by using new words in many different but suitable contexts.

4. Encourage each pupil to pay attention when you talk. Talk simply and correctly about things they are doing and things that will interest them.

5. Have conversations with children in which the pupil takes the lead in expressing what is in her mind.

6. Do not fuss over mistakes a pupil makes in pronunciation, until he can communicate easily.

7. If a child is having difficulties, check her visual and hearing abilities. Work on attention span, imitation and listening skills.

8. Use sign or symbol language to start communication, if a pupil is making little progress in speech.

9. Involve families in teaching programs: discuss with them the words you are planning to teach, the language you use, and encourage them to keep talking to their child.

10. Never tease pupils. Do not make fun of what they say or copy their mistakes.

10.0 READING & PRE-READING SKILLS

10.1 WHETHER, WHY & WHICH ?

Before deciding to teach reading we must consider three questions:

1) Whether we *should* teach reading ?
2) Why do we teach reading ?
3) Which language and script should we teach ?

We must decide for each pupil whether we will try to teach reading and how much time we will spend on it.

To teach reading uses a lot of time. Are some other skills more important for our pupils to learn ? Should we, for example, spend more time on language development so that the pupils can communicate more easily ? Should we spend time on outings so that they learn to go shopping and learn more of the world around them ? Or should we spend time learning to read ? Should we do more vocational training or cooking and repair of clothes so that they can live independently if need be ?

Reading and writing skills can provide an important means of communication for some children with cerebral palsy or other speech problems.

We want our children to learn as many as possible of the skills they need to live a normal life. Countries with high literacy use many common public signs, e.g. "Closed", "No Entry", "Ladies", "No Smoking", which can cause embarrassment to anyone who cannot read them. In Pakistan we have less written signs. Very few books are available for readers with a small vocabulary. Newspapers require reading skills beyond the capacity of mentally retarded people. On the other hand, most parents want their children to learn to read if at all possible. Some children have the ability to transfer to a normal school after getting help in a special school. Those children need to learn to read.

The teacher must consider the abilities and needs of each child before deciding whether or not to teach reading. In some cases it may be more important for a child to learn *a second spoken language*. For most pupils it is probably worth while to teach them to read and write their own name. After that, they may go on to read and write the numbers up to 10. A few go on to reading words.

If mentally retarded children are taught to read, they should be taught *one language only:* either their mother tongue or the national language. It is very confusing to teach a child to read more than one alphabet script at a time. It is still more confusing if the two scripts are written in opposite directions. It also involves a great deal of memory work. A child learns much more easily to read a language if he can speak the language easily.

If for any reason it is decided to teach a pupil to read a language other than his mother tongue, the teaching of reading should wait until he has some fluency in speaking the language he is going to learn to read. (Pakistani children who speak a regional language as their mother tongue, should wait until they can speak Urdu with some ease before starting to learn to read Urdu.)

10.2 PERCEPTUAL SKILLS NEEDED

Several skills are needed if a child is to learn to read and write more than just his name and the figures representing numbers. Many of the necessary skills are useful anyway and may be taught even if the child does not get as far as learning to read and write. The skills include:-

1) Recognising, matching and copying shapes and discriminating details in pictures.
2) Hand-eye co-ordination, i.e. accurate control of hand movements.
3) Ability to complete a drawing of an unfinished picture or shape, to continue a pattern, to remember and copy the order in which a series of pictures or shapes is given.
4) Sound discrimination, remembering the order of a sequence of sounds, words or instructions, copying a rhyme after hearing it.
5) Memory - both for things seen and things heard.
6) Language.

Skills (1) to (4) are skills of perception:- (1) to (3) being visual perception and (4) being sound perception.

* *Perception* is the ability to notice details of what the eye sees (or the ear hears) and compare things seen or heard with one another or with a remembered model.

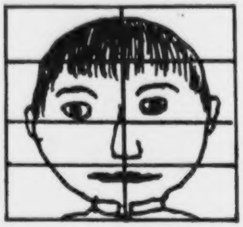
A child who has problems of visual perception may have quite normal eye sight (though it is always useful to have his eyes checked by a specialist). But his brain does not *make good sense* out of what his eye sees. The child can be trained to overcome this problem. In the same way with sound perception, a child who has nothing wrong with her hearing (again this should be tested by a specialist) may have a brain that needs further training to *make sense of the sound.*

Some children have problems with one or more of the skills listed but may otherwise be normal. Such children need special training to overcome the problem. Rapid progress may be made if the teacher correctly identifies the problem and helps the pupil overcome it.

There are some pupils, in schools for mentally handicapped children, who learn all the above skills easily. These pupils can go straight on to word matching and reading.

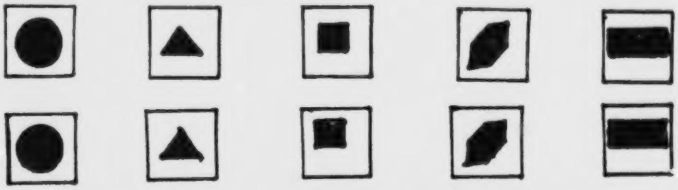
10.3 RECOGNISING, MATCHING & COPYING SHAPES

Playing with bricks, doing inset and jigsaw puzzles and looking at picture books, drawing, playing with paint and plasticine, all help the pupil to become aware of shape. Simple jigsaw puzzles can be made by cutting pictures into pieces along straight lines as well as the more usual jigsaw pieces. If the edges are all straight, the child must study the picture rather than the edges, to decide which piece goes where. Pictures of people, faces and animals are very suitable for this. It is also good sometimes to keep an identical picture which has not been cut, with which the child can compare what she is doing while making up her puzzle.

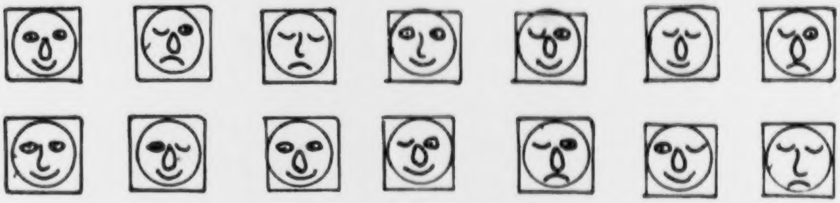


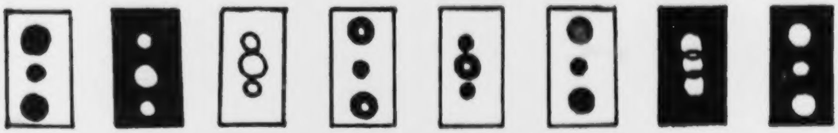
Wooden shapes can be matched with the same shapes drawn on card. At first the shape on the card can be drawn with a thick line and coloured in. If the pupil matches the shape easily, use cards with a shape that is drawn with thick line but not coloured. If she finds this easy, shapes drawn with simple pencil line should be used. The pupil herself may draw around wooden shapes, colour them in and then cut them out. Pictures drawn by the teacher may also be coloured in and cut out.

* Picture matching. Sets of pairs of cards or shapes, or of pictures may be used for matching. Shapes can be cut out of coloured paper and pasted on card (for strength) or they may simply be drawn on card in pairs.



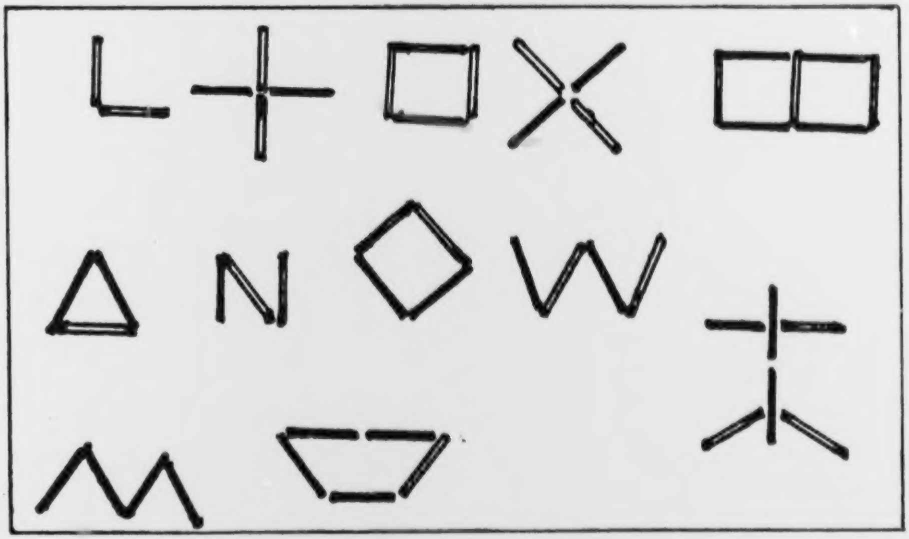
* Differences. Pairs of cards can also be made to teach the child to notice small differences between pictures. He can look for pairs that are identical or he may be given a number of similar cards of which only one pair is exactly alike, in order for him to find that pair.





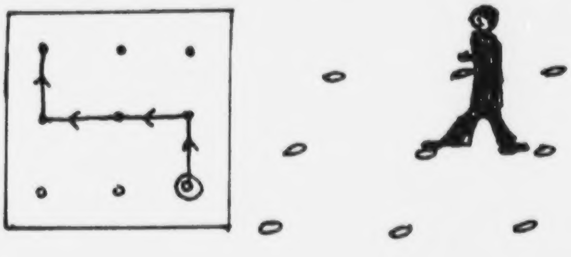
Puzzles can also be found in magazines, showing two pictures that are nearly the same but have a few small differences. These puzzles are good for training pupils to notice details.

The teacher can make sets of cards with match-stick patterns stuck onto stiff card:

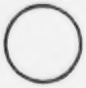
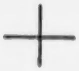
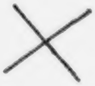
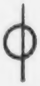
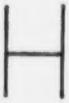


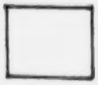
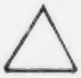
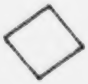
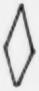
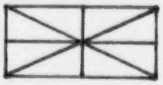
The pupils may be given some used match-sticks with which to copy the shape given. (*Do not give unused matches to any pupil who may suck them*). If a pupil has difficulty with a particular shape, he can practise doing other puzzles and drawings of that shape.

The pupil can copy shapes by drawing on paper, blackboard or just making gestures in the air. The teacher may give a shape drawn on paper and tell the child to copy it onto the blackboard; or the teacher draws on the blackboard and tells the child to copy on the floor etc. A card can be given with a pattern similar to one drawn on the floor. A shape is drawn on the card, which the child then walks as shown in the diagram.



Below are some shapes which a pupil should learn to copy, in order of difficulty:

1) 
2) 
3) 
4) 
5) 

6) 
7) 
8) 
9) 
10) 

* **Tracing** is often easier than drawing. If a child cannot at first copy a shape, she can try to trace it. It may help the child to say aloud what she is doing, e.g. "Now turn the corner", "Cross the other line", "This is a curve" etc.

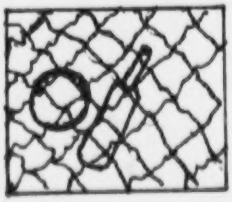
* **Peg Board** A pupil may also copy patterns made with coloured pegs on a peg board. If pegs and a board are not available, painted nails can be used and pieces of wood into which holes have been drilled in a pattern.

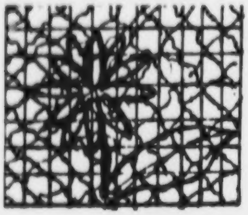
The pupil will learn more about shapes if she experiences *shape* in as many ways as possible:

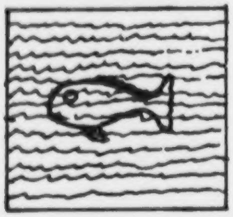
- using touch to identify a cut-out shape hidden in a bag, either pointing to a drawing of that shape or naming it;
- wearing a blindfold and finding a named shape out of several that are presented on a tray;
- the teacher may 'draw' a shape with a finger on the pupil's back and then ask him to draw it either on paper or by moving his finger in the air;

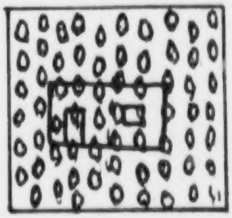
- the teacher 'draws' on the pupil's back: the pupil then finds the shape drawn, from cut-out cards;
- the pupil is blindfolded and given a pencil to hold. The teacher then puts his hand over the pupil's hand and draws a shape. The pupil has to identify what shape he has drawn;
- the pupil herself tries to copy a shape without being able to see her hand.

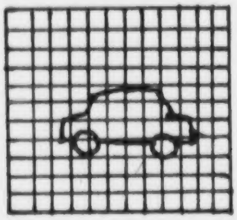
Some children can identify shapes when they are drawn clearly on a plain background, but if there are any other markings on the paper they become confused. Some pupils are unable to make out the borderline where one object ends and the next begins. (If they have *sound perception* problems, they are unable to distinguish what someone is saying from the background noises). These children need to practise, using pictures such as those shown. (The pupil may match pictures such as these with pictures of the same objects drawn on plain card; or she may colour in the shape or object)



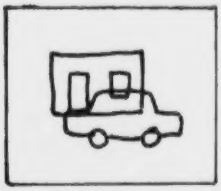


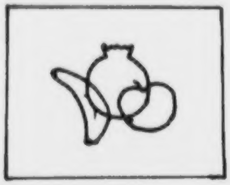


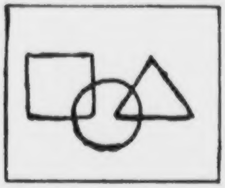




The pupil may draw with coloured pencil around one of the objects or shapes in the following pictures; then around the other shape.



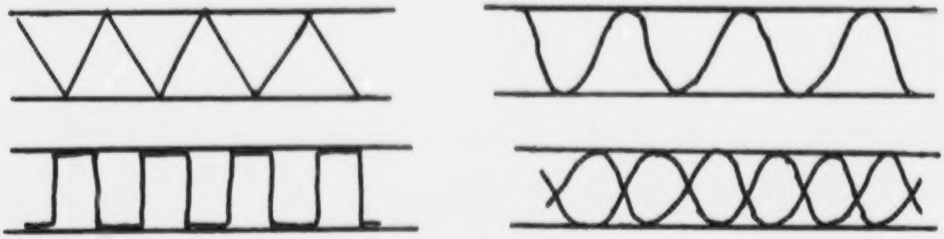




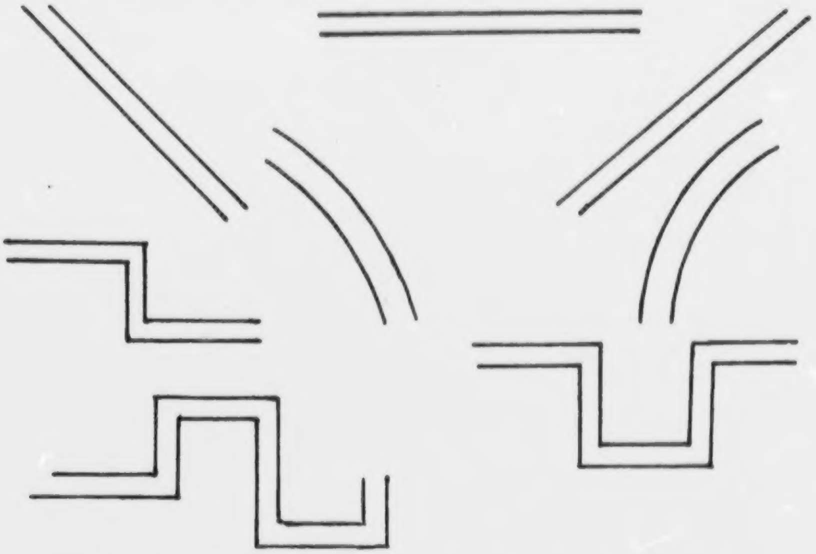
10.4 HAND-EYE COORDINATION

Hand-eye coordination is the ability to control hand movement accurately, according to what one sees is needed. Good hand-eye coordination is needed to catch a ball or to hit a ball with a bat (hockey, cricket, squash), as well as to control a pencil. To improve eye-hand coordination, practise catching balls (or bean bags, which are easier) and hitting balls; pushing toy cars along roads drawn on card or on the floor, moving toy trains on tracks, moving counters in board games.

The pupil may draw over simple patterns in his exercise book or on the blackboard:



Another exercise is for the pupil to draw a line in the space *between* another pair of lines. The lines can start 1/2" apart (1.5 cm.), and later the gap can be narrowed to 1/8" (0.2 cm). The patterns should involve hand movements upwards, downwards, to either side, curves and right angles.



These patterns may be drawn on paper, card or the blackboard.

In all paper and pencil exercises the child should work in the direction of the writing she may eventually learn to read and write. In countries using Roman script, children should work from left to right; with Urdu/Arabic script, right to left.

The child may be encouraged to speak for himself during these exercises:- "Careful, up, down, round, turn, across, stop !"

The pupil should do some drawing exercises while standing at the blackboard, in such a way that he must move his arm across the mid-line (an imaginary line through the middle of his body). Thus the right-handed child should reach his hand across to the left side of his body; the left-handed child to the right side of his body. Many children have less control of hand movements across the mid-line. This should be practised. Balls and bean-bags may be thrown to the "wrong" side of the child for her to catch.

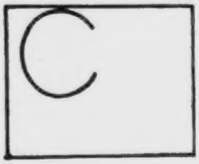
The child must be allowed to work with her preferred or stronger hand. NO PUPIL SHOULD EVER BE PUNISHED OR PREVENTED FROM WRITING WITH THE LEFT HAND. Occasional exercises may be done with the weaker hand (e.g. shape recognition by touch, drawing shapes with the hand in the air), but all drawing work should be done with the hand that the child prefers.

Some children find it hard to learn to read, simply because their eyes are not trained to follow a line of writing steadily in one direction. The above exercises help the child to practise doing so.

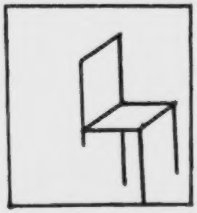
10.5 COMPLETING, SEQUENCING

* *Completing.* A skill related to learning to read is that of completing an unfinished drawing of a picture or shape, e.g.:

A circle
with a
piece
missing



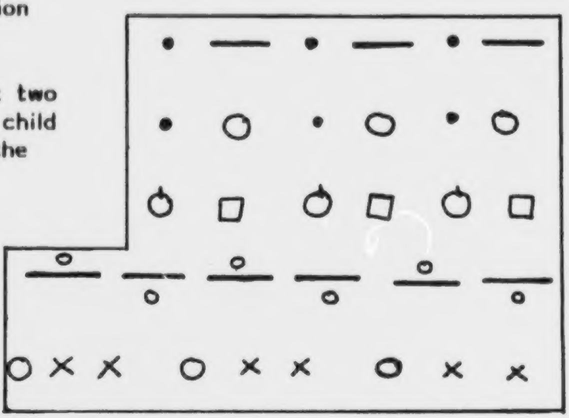
A chair with
part of a leg
left out



The pupil may be given an easily recognised drawing to complete; or he may be given a pair of drawings, one complete and the other incomplete, to 'make them the same'.

* **Recognition and Continuation of patterns:**

The teacher writes the first two or three sequences and the child fills a line or a page with the same pattern.

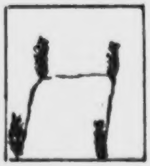


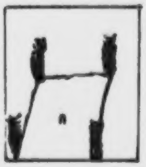
Patterns can also be completed with pegs and pegboards with alternating patterns of coloured pegs e.g. red, yellow, red, yellow; or blue, white, blue, white, etc.

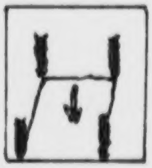
* Sequencing. This means remembering the correct order in which things go or occur. Example: The letters of a particular word always go in the same order. If they go in a different order, they make a different word or nonsense.

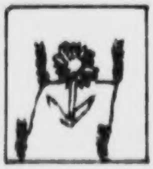
To teach children to put things into the correct sequence, use picture cards. Put two cards with different pictures side by side so that the child can see the pictures. When she has looked at them, turn them over (without changing their positions) or cover them. Then give her two identical cards and ask her to put them in the same order or sequence as the covered ones. After doing so, she can check whether she placed them correctly. Then increase the number of cards to 3, and so on up to 6 cards. When the pupil can remember and place up to 6 pictures in correct sequence, change over to using cards showing shapes (square, circle etc.)

A related skill is to remember the *order-in-time* in which events take place. Pictures may be used to illustrate a story or events from real life, e.g. 4 pictures showing a flower growing:-









Other examples : 6 pictures of a meal being prepared, a house being built etc. The pupil must place the pictures in the correct order in which events happen.

10.6 SOUND DISCRIMINATION

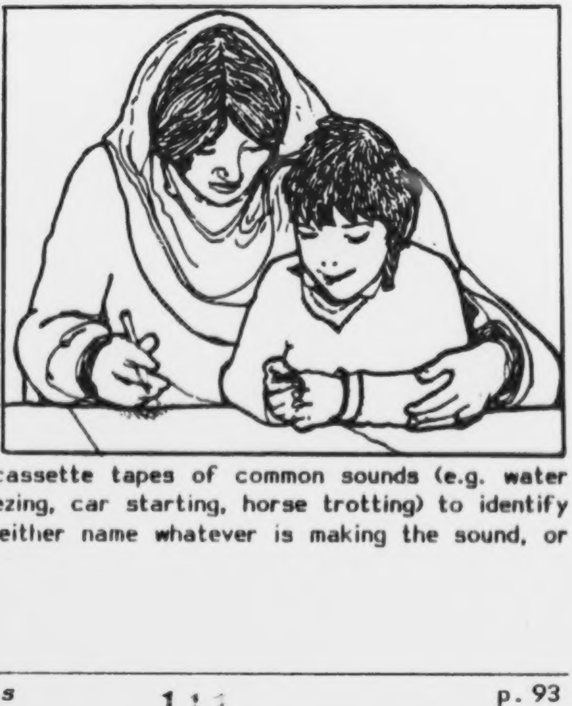
When learning to read, the pupil learns that sounds can be represented by letters. A child must be aware of differences between sounds, if he is going to understand that different sounds are represented by different letters.

Games can be played where children think of a word beginning with different sounds, e.g. What words begin with 'b' ?
What words begin with 'k' ?
What words begin with 's' ?

To start with, the teacher may show a selection of objects to the pupils on a tray and ask them to say which one begins with 'D' etc. The teacher can make up riddles such as "What begins with 'k' and you ride in it ?" "What begins with 'b' and sings in the trees ?"

When the pupils are familiar with this they may be asked to list any things in the classroom, or things they have seen in the street etc., beginning with different sounds.

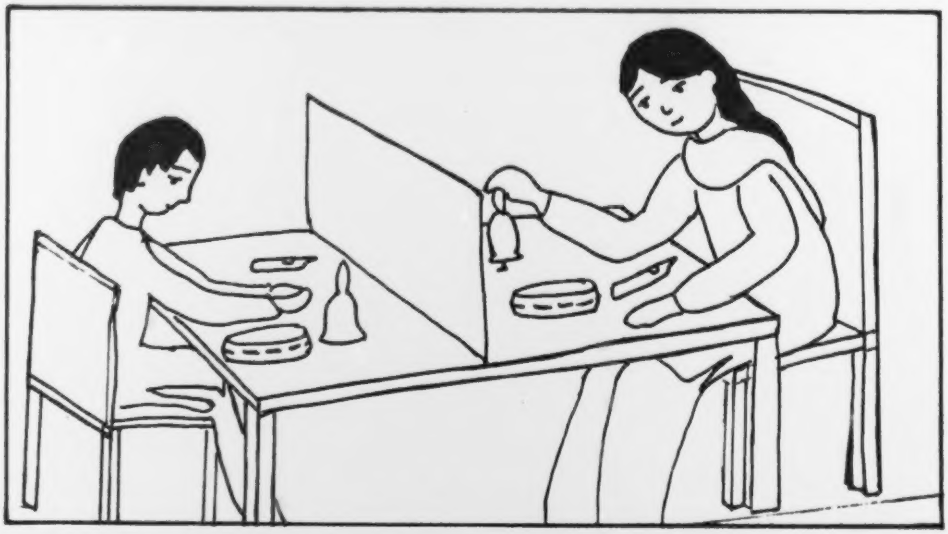
Children can be shown the letter of the alphabet representing the sound. If the sound is represented by more than one letter, show the more common letter, but accept any words the children may offer that are spelt with the other letter. Example: in English, show 'C', but accept 'King'. In Urdu for 't' sound show 'te' but accept without correction if the child says 'tota', until the child is reading proper words.



Many pupils will need some preliminary exercises before being able to play games with sounds and letters.

Pupils will enjoy listening to cassette tapes of common sounds (e.g. water running, door closing, man sneezing, car starting, horse trotting) to identify different sounds. They should either name whatever is making the sound, or show a picture.

Similarly, two sets of simple musical instruments may be used: the teacher makes sounds on a concealed set of instruments. The second set is with the pupil, who picks up each instrument as he hears its sound.



Animal noises can also be imitated, the child pointing to a picture of whichever animal normally makes that sound.

* Rhythm Listening to different rhythms and copying them is a helpful and enjoyable exercise. The teacher beats out or claps a rhythm and the child joins in, also clapping or stamping or tapping, or making marks on paper with a pencil in time to the rhythm. It is good for a child sometimes to tap rhythms with her stronger hand, sometimes with her weaker hand, sometimes with both.

Remembering the order in which sounds have been made: a list of names may be given to the pupil which he will repeat in order. A series of simple commands may be given, to be carried out in order. A pupil may be asked to repeat a story in his own words, with the events in the right order.

10.7 MEMORY

Memory can be divided into long-term and short term. Short-term memory covers a period from a few seconds to a few minutes. Long term memory is for anything longer. There is also visual memory (for things seen) and auditory memory (for things heard).

When working on memory exercises
it is very important to give a
lot of encouragement and reinforcement,
so that the pupil does not become
bored and discouraged.

It is easier to remember something that is familiar than something strange. To learn a line of a poem in one's own language is easier than to learn a line in a language one has never heard before. To learn to copy a word in one's own language is easier than one in an unfamiliar script. So pupils should have as much experience as possible of the things that they will need to remember, e.g. make puzzles the shape of numbers and letters; cut out sandpaper letters for the children to feel and handle etc.

The pupil with memory problems should practise the exercises already described, so that she becomes more familiar with shapes etc. Short term memory exercises are similar to the shape copying exercises described previously. When a pupil can copy a drawn shape or a matchstick shape, show the shape to the pupil for only 5 seconds, then remove it: the pupil should copy it from memory. The exercises given in the section on sequencing are also helpful for training visual memory.

* Memory Games. Show two or more cards, e.g. a car and a ball, then turn them over and ask which is the car. Lay out a sequence with picture cards, then cover them and get the pupil to lay out the same sequence from an identical set of cards. Uncover the first set and compare the result.

* The pupil may be shown a tray having several objects on it. Take the tray out of sight, remove an object and show the tray again. The pupil must name what is missing. When she can do this, increase the number of objects on the tray and also the number removed. Alternatively, the tray may have several objects on it - the pupil sees it for about 10 seconds, then has to name the objects when the tray is removed.

* Two or more pupils may play a game in which a set of picture cards made up of pairs are placed face down on the table, each one being shown before being placed down. The pupils take turns to pick up and show two cards, trying to pick up pairs. When a pair is found the finder keeps them, and the 'winner' is the child with the most cards at the end.

* Auditory memory. The pupil should be asked to repeat a short series of words or numbers or instructions in the correct order. The series can then be lengthened. Music and song can also be used.

* Long term memory. This often improves by itself as short term memory improves. If this does not happen, the teacher must be very patient and also imaginative. The words which the child must remember, e.g. learning the numbers, must be practised and repeated *without the child becoming bored and discouraged.* The teacher should always show interest in this type of work and be full of praise for the pupil as he is doing it - if the pupil feels that the teacher finds this work boring and unrewarding, he will find it boring too and will not make progress.

When long-term memory does start to improve, after much practice, it may gather strength quite quickly: one boy with long term visual memory problems took 12 months to learn the figures 1-10, and only after that did he begin any alphabet or reading work. Six months later he could read 80 words in Urdu. He then moved to a normal school, where he was very successful even though he needed to do a lot of memory work.

10.8 LANGUAGE

Language teaching has been discussed in previous chapters. A pupil with limited language ability may be able to read or write a few words (indeed for some pupils with language disorders, reading may be an aid to learning to talk). But for a pupil to learn to read easily her command of language should be developed to the following extent :

- She should enjoy listening to stories, and should be able to tell stories herself, giving incidents in the correct order (unless she has some physical impairment of speech).
- She should be able to talk about pictures, and tell what has happened to produce the situation pictured, and what is likely to happen next.
- She should talk easily about what she herself has seen, done or heard.
- She should use complete sentences in normal conversation.
- She should be aware of sounds, and be able to play rhyming games etc.
- She should be able to listen to and carry out instructions.

Some pupils who have good perceptual and memory skills can be helped to improve their language skills by a carefully designed reading program. Pupils can be introduced to reading sentences a little more complicated than they themselves use, but not too hard to understand. Simple two word sentences, then three word sentences, then words like *his, hers, mine, in, on, under, is, are, to, from, with,* may be introduced. Gradually more complex sentences are brought in, never more than a step ahead of those the pupil uses in his own conversation. The teacher will usually need to make her own reading materials, worksheets, cards or books, to suit her individual pupils' needs and interests.

10.9 STARTING TO READ

* My name ! As already stated, the first word a child should learn to read and write is his own name. To learn this, he need not learn the whole alphabet. Even quite severely retarded pupils can learn to pick out their own name.

Next, he should learn to recognise, trace, then copy the figures 1 to 10. (The child may not at this stage be able to count, but reading the numbers will enable him to use money, read house numbers in towns, bus numbers in cities). When he can recognise and write the numbers and his name, he can begin tracing and copying the alphabet. Cards with the names of objects may be placed around the classroom in the right places and the pupil is given a matching card and told to find its pair, e.g. 'window' pasted on the window, 'table' pinned on the table, etc. The child will not really *read* the word, but he will recognise the shape - he will begin to see that marks on paper represent words, and words represent objects.

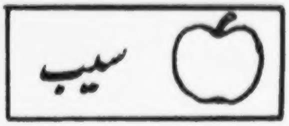
10.10 TWO METHODS TO TEACH READING

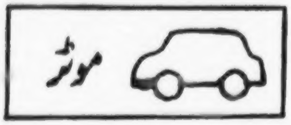
* 'Look-and-Say' Method

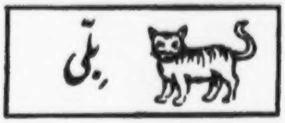
Pupils can be taught to recognise their own names written down and to match pairs of wprd cards one of which is fixed to the object named. In reading these words, the pupil looks at the shape of the whole word. She does not break it down into different letters.

Some mentally retarded children quickly learn to recognise words in this way, even when their language use is quite limited (e.g. spoken or signed use of about 50 words). In particular, some children with Down's syndrome have been successful, especially if the program starts when they are between 2 and 4 years old. But other pupils, including some who are of near normal intelligence, find reading in this way very hard. Before making any progress, they would need to practise the perceptual exercises given earlier for months or even years.

The only way to know whether a child can succeed with Look-and-Say is to try it out. Further words may be introduced on picture cards - the pupil matching a card bearing the written word with a card that has both word and picture:







سیب	موٹر	بلّی

The above cards are suitable for a child learning to read Urdu. If a pupil were learning to read English, 'car' and 'cat' look very alike and should not both be introduced at the same time to beginners using this method. When they can read at least 50 words easily, pairs like 'car' and 'cat' can be used to 'look for the difference'.

It is enough to introduce two new words at a time by the 'Look-and-Say method. Further words should not be introduced until all previous words are fully known and remembered.

The teacher must take great care when writing words for the pupil who is starting to read. The style of writing must be simple and consistent, with letters being formed always in the same way.

Pupils will enjoy using this method to learn to read if each pupil, with the teacher's help, 'writes' his own first reading book. This should consist of simple sentences made up of short easy words. The child should tell the teacher what he wants her to write, e.g.:

My name is ......
I live in ....
My father's name is ......
I have ..... brothers and .... sisters
My biggest brother's name is .....

The child himself may draw a picture on each page, to go with one or two sentences of writing.
Some pupils may prefer to make up a story for the teacher to write down, and then either pupil or teacher draws pictures to illustrate it.

For many pupils, Look-and-Say is the easiest way to learn to read a limited number of words. But it is hard for mentally retarded pupils to learn to read a larger vocabulary using Look-and-Say, unless they have unusually good memories.

### ▪ Phonic method

The second method of teaching reading involves dividing each word into the letters of which it is made. The pupil learns which sound each letter represents and how sounds join together to make a word.

It is much easier for the pupil if he learns the sound represented by a letter, rather than the name of the letter - in Urdu 'aah, ba, pa' rather than 'alif, bey, pey'; in English, 'aah, ba, ca' rather than 'ay, bee, cee'. However, if the letters are to be taught in this way, the pupil's family must agree to cooperate. It is confusing for the child to learn in school the *sounds* that the letters represent, if at home she is expected to recite the alphabet *names*.

Letters should be introduced slowly, three or four to start. When the child knows and has practised words using only these letters, then two or three new ones at a time may be added. The letters seen first should be among those most commonly used; the less common letters should be kept till last. Two letters which look very like each other should not be brought in at the same time.

In Pakistan, the adult literacy reader *'Naya Din'* is currently the only generally available first reading book using the phonic method. It introduces the letters ت ا ل and ج on the first page and has a number of words and other combinations of these letters.

The pupil learning to read in this way should not only read the words from the page, but the teacher should also prepare word cards with each word and letter combination on a card. Pupils might *learn by rote* the order of words on a page while still being unable to *read* them. But cards can be put into a different order each time, so that pupils must look at them and actually read them.

A new page with new letters should not be started until the pupil knows every word from the previous page, when reading from cards, as well as from the book. Pupils should learn also to write the letters and words at the same time as learning to read them, unless prevented by physical disability.

Most of the mentally retarded children who will learn to read should learn by the 'Look-and-Say' method to recognise their own names and the names for about twenty common objects (including those to be seen on signboards, if appropriate). After that, to avoid an excessive amount of memory work, it is a good idea to begin the Phonic method.

However, some pupils are quite unable to learn by the Look-and-Say method, yet they can learn to read using the Phonic method. For others the Phonic method is too hard, yet they can slowly build up a reading vocabulary of several hundred words using Look-and-Say method. The teacher should use the method best suited to each individual child.

(An advantage of the Phonic method becomes clear in the next section, where we consider *writing*).

10.11 WRITING

A pupil who learns to read by the Look-and-Say method looks at the whole shape of the word. The words which a pupil first learns to read by this method are chosen to look quite different from one another, so that the beginner can easily tell one word from another. It is not intended that a child should learn to write each word as he learns to read it. It would be hard for him to do so, as he has not learnt to break down the word into the parts of which it is made (letters or groups of letters). Each word is learnt separately as though its shape were unrelated to other words.

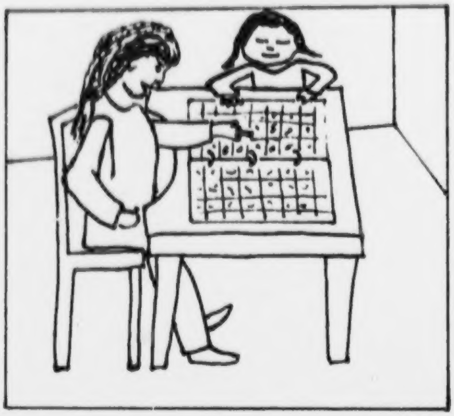
On the other hand, the child who learns to read by the Phonic method learns to recognise the individual letters. So when she reads a new letter or a new word, she can also practise writing it. Thus reading and writing are learnt together with a minimum of difficulty.

10.12 LITERACY FOR THE NON-SPEAKING CHILD

If a child cannot speak for some physical reason (e.g. Cerebral Palsy), reading and writing can be an important means of communication.

The pupil will start with word matching and then matching word cards with pictures or objects.

Words can be written on a small board kept always within reach so that he can point to them when needed, or he can have a set of word cards which he picks out and arranges to make sentences to communicate. Later he may learn to spell, and if he does not have enough physical control to learn to write he will be able to spell out words on a letter board, or perhaps learn to type.



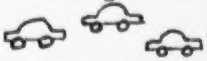
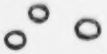
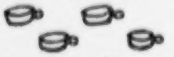
11.0 COUNTING & NUMBER WORK

11.1 COUNTING

If a pupil really understands *counting*, she will not find it hard to learn basic arithmetic, when it is taught properly.

What is meant by *counting* ?

Counting is much more than reciting "One, two, three, four, five, six, seven, eight, nine, ten". Reciting numbers is a *speech and memory skill*, like reciting a poem. It does not necessarily have any meaning to the pupil. Counting means much more than being able to recognise the figures 1 2 3 4 5 6 7 8 9 10 etc: that is a *reading skill*.

By counting we mean that if, for example, a pupil is shown some toy cars  and some balls  he would be able to say that there were the same number of each, and we call that number "three". If we then show some cups to this pupil  he should be able to say that there are more cups than cars or balls, and we call that number "four". *When the pupil can do this, he is counting.*

When we teach our pupils to count, we should follow a strict developmental sequence. Each new skill depends on the child learning the previous skill. The normal child can *recite numbers* by the age of about 3 years. She does not usually *understand counting* until she is about 6 years old. All too often, children are required in school to use numbers before they are ready for them. As a result, many pupils of normal ability feel that they never really understand maths.

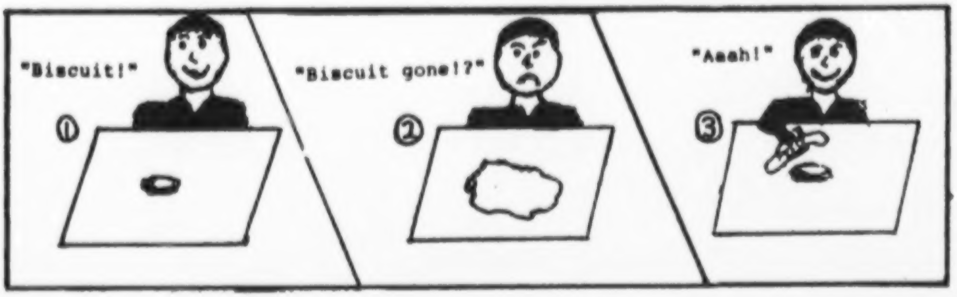
11.2 EQUIPMENT FOR COUNTING & NUMBERS

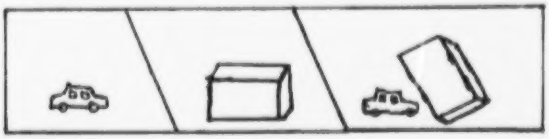
As explained in Section 4.7, mentally retarded children find it hard to 'generalise'. Because of this, they should use a large variety of equipment at each stage of learning, so that the same or similar skills are learnt in many situations. This applies very much to counting and number work. The teacher should get into the habit of providing a wide variety of simple equipment for counting and numbers, rather than buying a few pieces of expensive equipment to be used again and again. A lot of simple number equipment can be made very cheaply by the teacher herself, as described in this chapter.

11.3 OBJECT PERMANENCE

By about one year old, the normal child has got the first conceptual ability related to numbers: an understanding of *object permanence*. By this, the child knows that a thing still exists even when she cannot see it. Before she learns this, the child does not look for a toy she has dropped, or which has rolled out of sight, because when she cannot see an object she no longer knows that it exists.

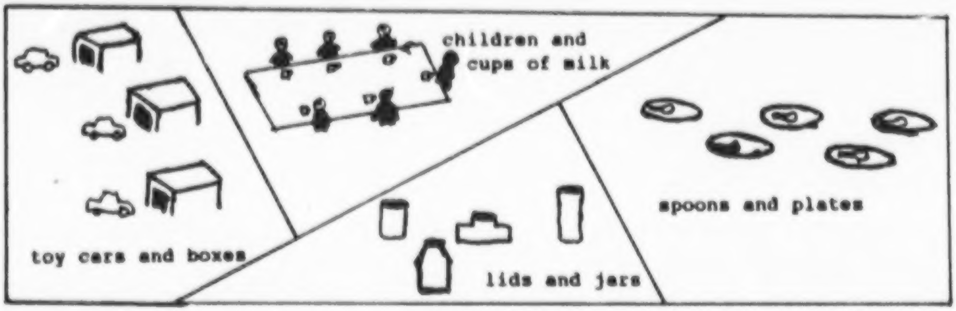
The concept of object permanence is needed also for learning language, because in order to talk about things we need to be able to picture them in our minds, whether or not we can see them. If a child has not begun to *look for* things when she has dropped them, then practise hiding toys under a cloth or in a box, asking the child to move the cloth and 'find'.


"Biscuit!"
①
"Biscuit gone!?"
②
"Aaah!"
③



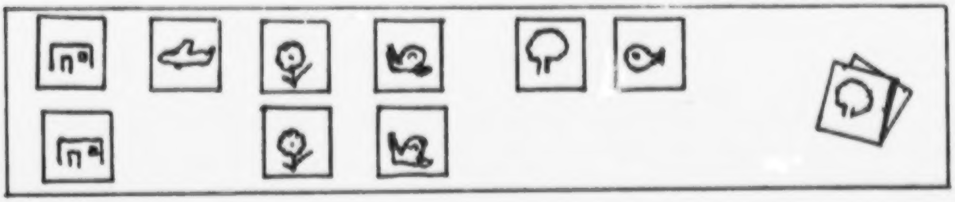
11.4 ONE TO ONE

Many children will already understand *object permanence* by the time they come to a special school. The next skill to work on is the use of the idea of *'one'*. This is known as *'one to one correspondence'*. When a pupil understands *'one to one'*, she can give one plate to each child, or put one spoon on each plate or put one pencil with each exercise book etc. At first, the teacher should give to the child an exact number of things to put 'one to one'. Later, there can be some objects of one sort 'left over', which the pupil will put aside.



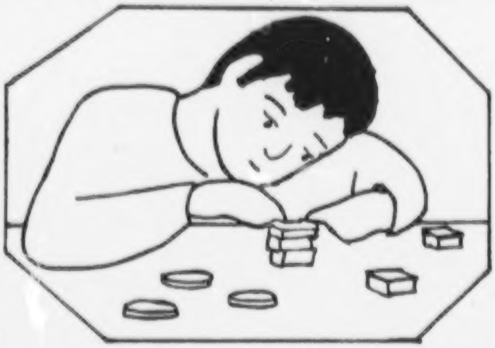
11.5 MATCHING

Matching is a skill related to One-to-One. The teacher should provide two sets of matching picture cards. The first set is laid out on the table or floor, and then the pupil puts the correct matching card on top of each of the first set. Small objects can also be used in this way. The first of each pair of objects is laid out on the desk by the teacher and the matching object is placed next to it by the pupil.



11.6 SORTING

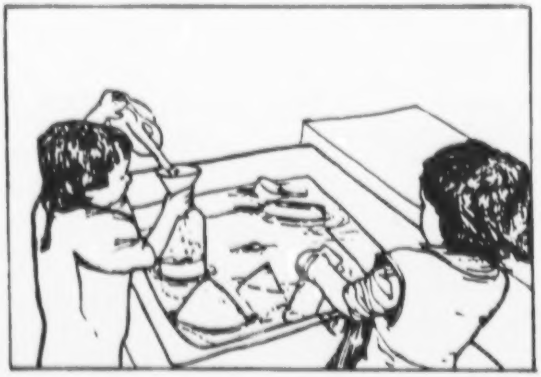
The next skill, *sorting*, should not be attempted until the pupil understands 'one' and can match pairs easily. *Sorting* is the separation of a mixture of objects into different sets. For example, we could give the pupil a mixture of Lego bricks and marbles and tell him to put the bricks in one box and the marbles in another. All types of things can be sorted - cups and plates, pencils and books, nails and screws etc. At first, only *two* types of thing should be used. Later, when the pupil easily sorts things into two sets, three or more types of object can be used.



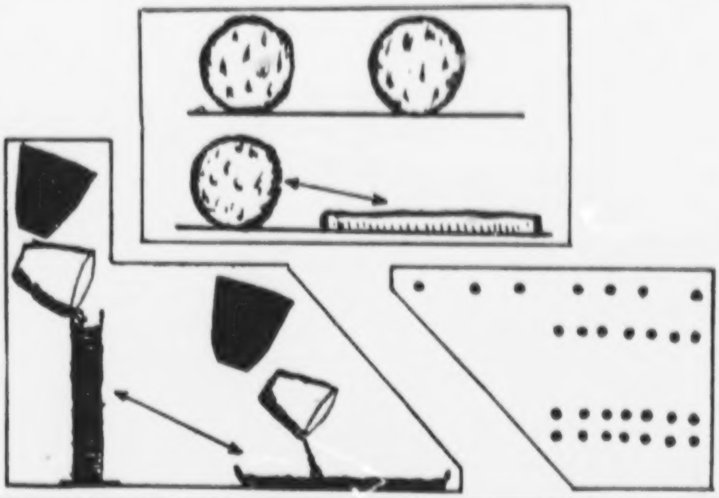
When first teaching pupils to sort things, use objects that are clearly different in kind. When a child can sort these things, then we use sorting skill to teach *size*, e.g. 'big' and 'small' (big bricks in one pile, small bricks in another); *colours* (children should start to sort colours before they are able to name them); *shapes* (separating round beads from square, sorting cut-out wooden shapes, or cards with shapes drawn on them).

11.7 SIZE, SHAPE, ARRANGEMENT

In the early stages, the more experience the pupil gains of sizes and shapes, the more easily she will learn. Size will be learnt by building with bricks, playing with different sized containers in sand and water, playing with lumps of clay or dough. She will learn about shapes by using inset boards and puzzles.

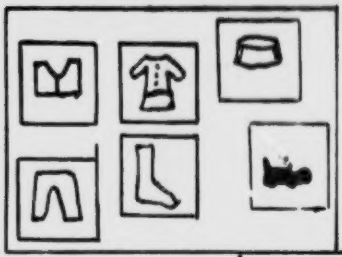


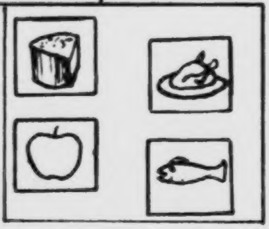
At the first stage of all, the child learnt that objects still exist even when he does not see them. Now he learns that the number of objects does not change even if they are arranged differently. The child also finds out, while she engages in her experiments with sand and water, that the *amount* of some material or liquid does not change when it is placed in a container that has a different shape, or when it is moulded to form another shape.

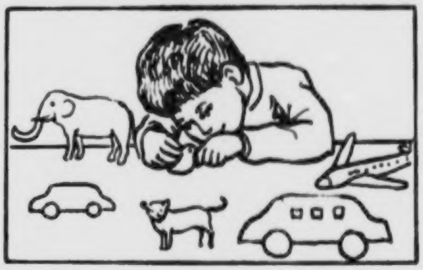


11.8 CLASSIFICATION

Classification is related to sorting but is more advanced. The objects or pictures in one class are not the same, but they are all of the *same kind* e.g. toy *animals* (which may include camel, cat, cow, sheep, horse, elephant) or toy *vehicles* (including car, train, boat, motorbike); pictures of things to eat, pictures of clothes; boys' names, girls' names.



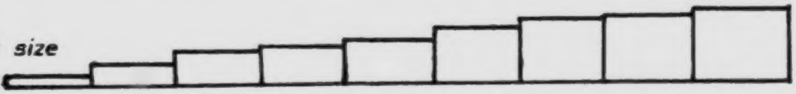




11.9 ORDERING

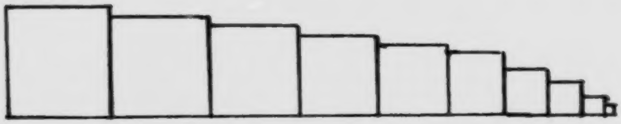
When a pupil can easily sort objects (e.g. bricks or beads or nails) into 3 sets sorted by size, without mistakes, she is ready for the next stage which is called *ordering*. Ordering involves putting a series of objects in order of size, or number. Some of the *Montessori* equipment is very suitable for this (pink tower, broad stairs, graded cylinders, cylinder blocks, number rods).

* *Ordering by size*

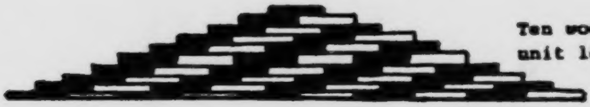


Ten blocks ranging from 20 x 1 x 1 cm. to 20 x 10 x 10 cm.

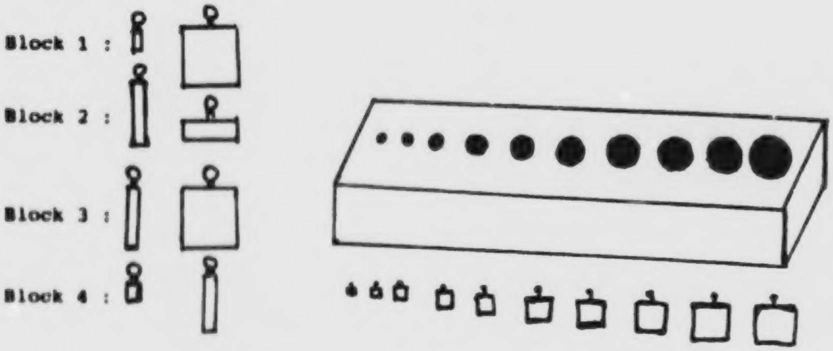
May be laid out in many different ways.



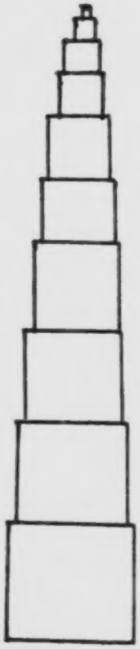
Ten cubes ranging in size from 1 x 1 x 1 cm. to 10 x 10 x 10 cm.

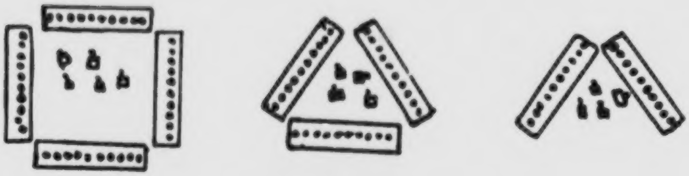


Ten wooden rods or strips, of one unit length up to ten unit lengths, alternate contrasting colours. The unit may be 1 cm. or 10 cm. or any other length.

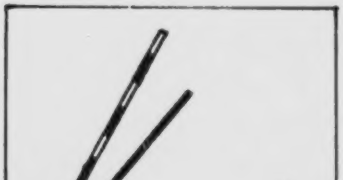


Four Blocks each with holes for ten cylinders.
Cylinder diameters from 1 cm. to 5½ cm.,
and of depth from 1 cm. to 5½ cm.



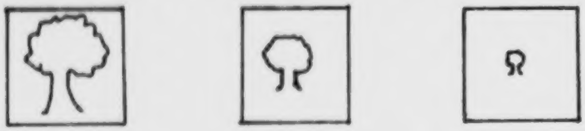


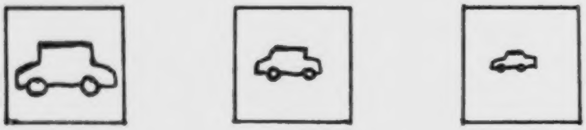
When a pupil is proficient in using each block, more than one block may be used laid out as shown.



The pupil should be encouraged to play with this equipment freely, learning from his own experience. The teacher should sometimes show the pupil how to build the pieces 'correctly', but should not always be correcting the child. It may be useful sometimes to give the pupil only a selection of the pieces, of quite different sizes, so that he may more easily tell the difference between them. Even in this case, let the pupil also build freely with the bricks.

Cards showing the same object, but in different sizes, can also be used.



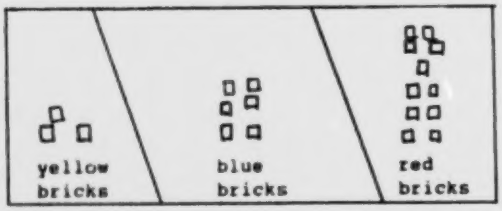


- *Ordering by number*

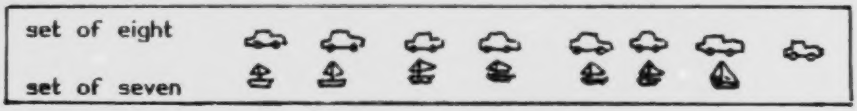
When a pupil can easily order objects by size she can start ordering groups of objects by the *number of objects* in them.

To start, use two sets of objects of similar size and teach the words for 'more' and 'less', e.g. use 3 marbles and 7 small bricks (so that the pupil does not confuse 'more' and 'less' with 'big' and 'small'). Begin with a lot more of one set than the other, so that pupils easily see the difference. If the pupil knows colours, it is good to use *differently coloured but otherwise identical* bricks or pegs for this task. When the pupil can order two sets of objects by number, she should try ordering three sets.

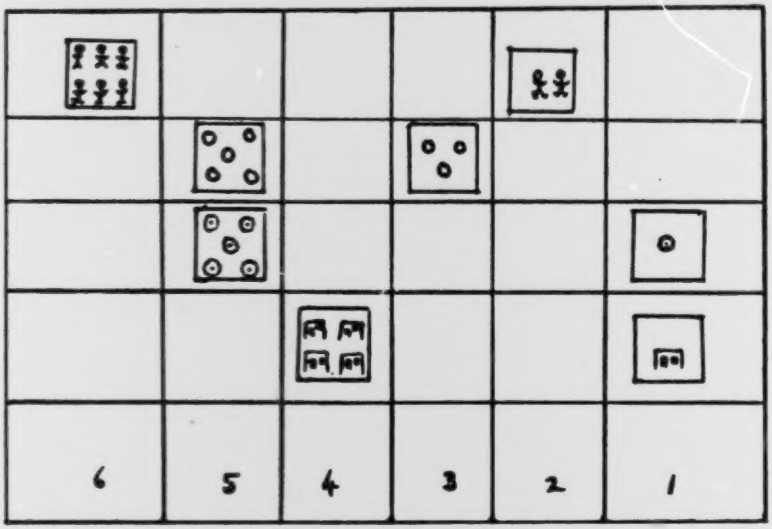
Let her get into the habit of putting the sets in order of size across the table - the smallest set on one side and the biggest set on the other. (It is not important whether the pupil works left to right or right to left, but whichever is used, she should always work the same way).



When the pupil can do this easily, start giving her a mixture of objects to sort and then put into order. When she can do three sets easily, increase the number. Then start using adjacent (next) numbers of objects, e.g. sets of seven and eight objects, or four and five. If the pupil does not easily see the difference, show her how to line them up side by side to see which has more (just as the pupil may have put things together when she was learning the meaning of 'one'.)



Again, when the pupil knows how to handle real objects easily, cards can be used with objects or shapes drawn on them.



11.10 ARITHMETIC

If a pupil can put 10 sets, each having from one to ten objects, into order according to the number of objects in that set, he is able to count. All he needs to learn now is to attach to each set the *name* of the number. (He probably learnt this a long time before, by singing 'counting songs'). He should also learn the figure that represents the number.

Even intelligent children may become very confused by the traditional way of counting, pointing to objects and saying "One, two, three". Object number three is exactly the same as object number one, so what do we mean by giving them different numbers ? And if we start counting at the other end, what we called 'one' the first time, now becomes 'five'. A normal child finds difficulty with this - and it is worse for mentally retarded children. In fact, when counting is taught the traditional way, it is really saying "First, second, third". 'Three' really means *the whole set of three objects*. Using the method given above to teach counting, we avoid this difficulty. It is based on research by Jean Piaget and other psychologists, and is well tested and established.

- The Rules of Arithmetic. Once a pupil has learned to count in this way it is easy for her to learn the basic rules of arithmetic. The rules should be introduced in a practical way. Once she can count to ten, simple sums using numbers under 10 may be tried. Remember that the child is not yet able to hold ***abstract ideas of number*** in her mind. Give her real things to count, such as bricks or counters.

When the pupil starts working on paper she should first learn to represent the number symbolically on paper by drawing a line or circle for each object e.g. o o o o for four, o o o o o o o o for eight. (She will probably by this time also have learnt to read and write the numbers 1, 2, 3, etc. This is a reading skill, discussed in Chapter 10).

At first she will still need to use real counters to work out sums. Later she will only need the circles in her copy book:

* *Addition*

5 (o o o o o)
+ +
4 (o o o o)
___ ________
___ ________

* *Subtraction*

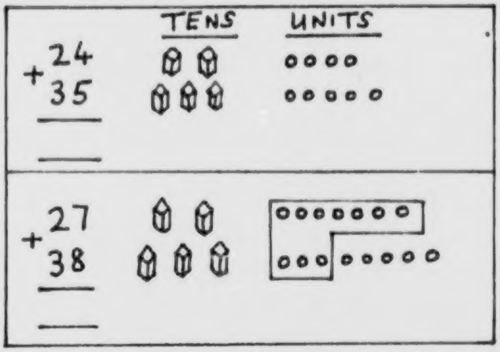
9 (o o o o o o o o o o)
-
6 (o o o o o o)
___ ________
___ ________

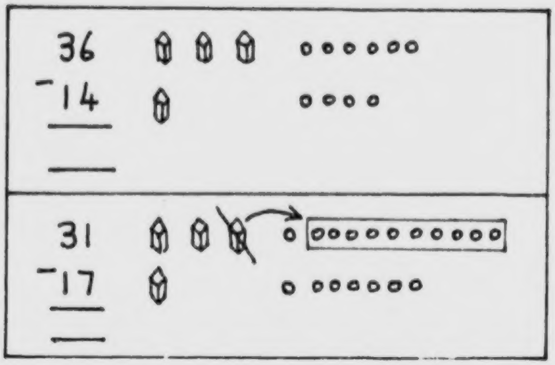
The meanings of the symbols (+) (-) and (=) can be hard for a child to understand, unless they are related to a practical, concrete task. Explain any sum that is written down, by showing real objects. The symbol (+) or (-) shows the action to be done using the objects.

In developmental terms, addition and subtraction are learnt at an earlier stage than multiplication and division. A child should master simple addition and subtraction before moving on to multiplication and division.

* ***Numbers Over Ten***

When teaching numbers over 10, show the child the full number of objects and how we divide them into sets of complete tens and write some 'left over'. Small objects like beans, peas, lentils, can be used. When the child first starts doing written sums, let him use beans as counters. Each set of ten beans can be put into a small container, such as an empty matchbox, or the lid of a jar. When the pupil is doing addition sums, he should have spare containers so that if another full ten is made up it can be placed in its own container.





To teach subtraction, begin with numbers under 10, using objects such as beans as counters. When the pupil has learnt to do subtraction of numbers under 10 with ease, she can go on to larger numbers, again using beans and containers. Let the pupil find out that, e.g., to take 7 from 12, she must open a container of 10 beans.

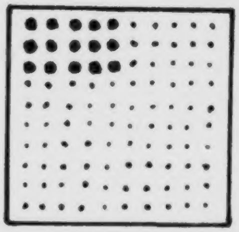
When she is easily able to do this with numbers under 20, she can go on to larger sums, e.g. subtracting 29 from 52, again opening up a container. Whenever the child moves on to a new level of difficulty or a new topic, he should start by using real objects (beans and matchboxes). However, when the child becomes familiar with the topic he can instead draw pictures in his exercise book of these objects - squares for boxes and circles for beans.

- *Multiplication and division*

The pupil should move on to the concepts of multiplication and division in a practical way before any formal work is done.

Tell the pupil to give two bricks to each other child. How many is that in total ? Share 14 marbles between 7 children. How many does each one get ? A pupil who is ready to start to learn about multiplication and division should be asked to do many tasks of this kind, e.g. put three tomatoes on each of four plates, put two blocks in each box, put two spoons of sugar in each cup. Similarly, if we have 12 tomatoes, how many can be put on each plate, etc. ?

More formal work can be started by using a peg board with pegs. Nails and a board with regular holes, in straight lines, can also be used. To start with a board with 10 x 10 holes is suitable - if the child later does sums multiplying figures larger than 10, he can be given a bigger board. Show the pupil how to make a rectangle of pegs with the right number of rows e.g. 3 x 5 = three rows of five pegs. In this way the pupil will understand the *meaning of multiplication* - that is more important than 'learning tables'. If a



child fully understands what is needed when she is asked to perform multiplication, and if she is able to work out sums by this method, then she is ready to benefit by memorising tables. That will make calculations quicker - but before learning a 'table' she should work it out for herself using the pegboard.

Division is done in a similar way - the pupil counts out the number of pegs needed, and puts them into the board in rows of the right length. The 'answer' is the number of rows - with any incomplete row being the remainder e.g. if dividing 37 by 5, count out 37 pegs and put them into rows of 5 pegs each. There will be 7 rows and 2 pegs left over (remainder).

If a pupil has the ability to learn more complicated arithmetic, it may be better for him to transfer to a normal school. If he is too old to do so, he may leave school and begin to learn the skills relevant for a suitable job.

****

The following number-related skills can help pupils to lead more normal lives. They may be tried at the stages indicated.

11.11 WEIGHING & MEASURING

The pupil should learn what we mean by weighing and measuring, even if she does not understand the meaning of the units used (e.g. metres, inches, kilos, pounds). She can weigh quantities for cooking and find out for herself that one kilo is more than one *pao* (quarter).

At the stage where the pupil is learning about 'ordering', he compares one size with another. At the same time, he can learn to compare weights. Identical containers (e.g. empty soap cartons or plastic boxes) may be filled with materials of different weight which the pupil places in order from light to heavy. He may also compare the height of fellow pupils to see who is the tallest etc.

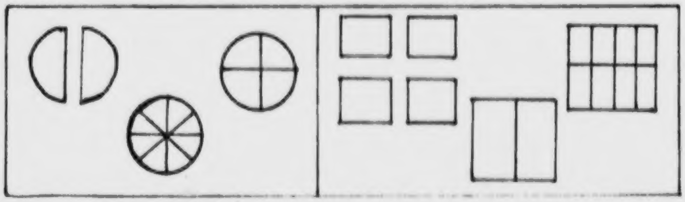
When the pupil has got some understanding of the concept of number (counting) as already discussed, she may start on measuring. The pupil may use a stick to measure the walls of the classroom, either using several sticks of the same length or using one stick and marking the wall where it ends and moving it along. Smaller sticks, or even pencils may be used to measure books, desks, table tops etc. The pupil says *how many sticks long* is a given object. When this activity has become familiar, sticks of a standard length (one metre or one foot) may be used, to learn the standard units.

11.12 MONEY, FRACTIONS & TIME

* *Money.* The pupil should learn to recognise notes and coins. This depends on colour recognition and perceptual skills. When the pupil can sort colour and size, he can go on to money. The ability to calculate money will come only with arithmetical skills. Some mentally handicapped children may never reach this, but at least the child should learn that if he is buying something costing 60 rupees he should give a red note (100 rupees) not a green one (10 rupees). He should also learn that if something costs 2 rupees, the shopkeeper will not be happy to get a red note. A good way of teaching the use of money is to take the children shopping regularly and let them handle the money. A classroom 'shop' can also be an enjoyable way of learning these skills.

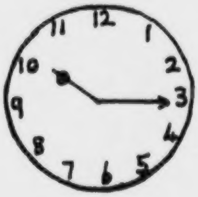
* *Fractions.* Calculating fractions will be too hard for our pupils, but they should learn the commonly used words for fractions. They may understand them only in particular contexts, e.g. half an apple, half a biscuit. Fractions are best introduced using foods. Jigsaw puzzles may also be half complete, showing half a man or half a flower. In weighing or buying food, pupils will hear and use the word 'quarter' ('pao') but they will think of this as a unit of weight rather than as a fraction of a larger weight.

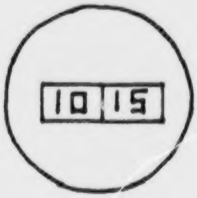
Inset puzzles may be made of squares or circles cut up into segments. This gives the opportunity to use the words for fractions, for the child to count how many pieces make the whole, how much is left when you take one away, etc.



* *Time.* As part of language training, pupils should learn the difference between morning, evening, night etc. Also days of the week. If there is a clock in the classroom, it should have a large clear face. When the pupil can read the numbers, she should learn first to tell full hours. Then she can go on to half and quarter hours. When she knows these, minutes can be started. The teacher can make small cardboard 'clocks', with hands which the pupil herself can move around.

There are two systems of telling the time: digital clocks use one method and traditional clock faces use the other, e.g. 'Ten fifteen', 'Two thirty five', as against 'A quarter past ten', 'Twenty five to three'. The teacher should decide which to use, and stick to one system. An older pupil can learn the other system too if needed, and if he is easily able to use the one he has already learnt.





If a pupil is capable of learning more detailed use of weights, measures, money and fractions, and is still young enough to transfer to a normal school, it would be more appropriate for him to do so.

12.0 DAILY LIVING SKILLS

12.1 WHICH SKILLS ?

Daily living skills are those practical skills which enable a mentally handicapped child or adult to lead a more independent or more normal life.

They include basic skills such as *feeding, dressing, toilet training and washing,* and more advanced skills like *shopping, travelling by public transport, taking part in social activities, doing useful tasks at home, coping with emergencies, vocational activities.*

12.2 FAMILY INVOLVEMENT IN SKILLS TEACHING

Ideally, parents should work together with teachers on all programs to teach daily living skills, using at home the same methods as in school. This helps everyone:

1) *The teacher* knows that her goals are suitable for the life which this particular child leads within his own family; and that her work is not being overturned by family members aiming in a different direction.
2) *The child* more easily understands what the adults want, when all the adults aim at the same goal and all give rewards for the same achievement.
3) *The parents* have the dignity of being consulted about their own child, and of having their experience respected by the teacher. At the same time they learn some methods of teaching which may be new to them, which they can apply to other situations with their child. The teacher may also learn new approaches from the parents.

This ideal does not always work out in practice. Sometimes parents cannot spare the time, especially if there are other children in the family. Some parents may be poorly motivated for teaching daily living skills, e.g. they may be more concerned that their child learns to *talk* than to *feed himself.* Others may simply not believe that their child *can* learn a particular skill, having waited for years for the child to 'develop it automatically' or having previously tried to 'make him do it', without success.

In that case, the teacher needs to start work at school even without support from the home. When the child has learnt some new daily living skills and has begun to use them at home, family members may more readily get involved in future. Parents should always be told *which skills* their child is learning and the *teaching methods* being used. The parents' own wishes should be considered when deciding which skills to teach first. If the parents give high priority to skills which the child is not yet ready to begin learning, the teacher should explain carefully why this is so.

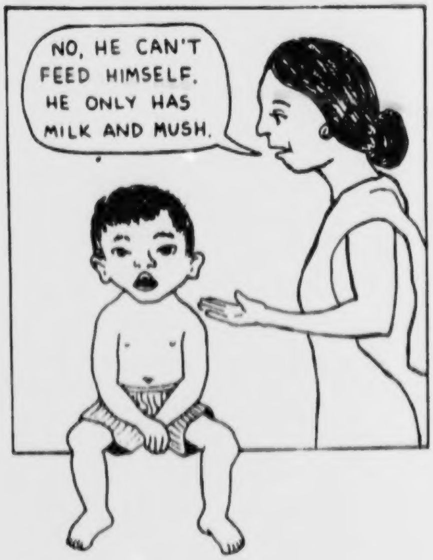
Methods used to teach daily living skills are described in other parts of this book, e.g. task analysis, backward chaining, shaping, modelling (Chapter 4). To teach the more advanced social skills, use can also be made of role play, story telling and discussion.

12.3 FEEDING

Most children, even with severe mental retardation, learn feeding skills because they are strongly motivated to eat and drink. The food itself is a reward for achieving success.

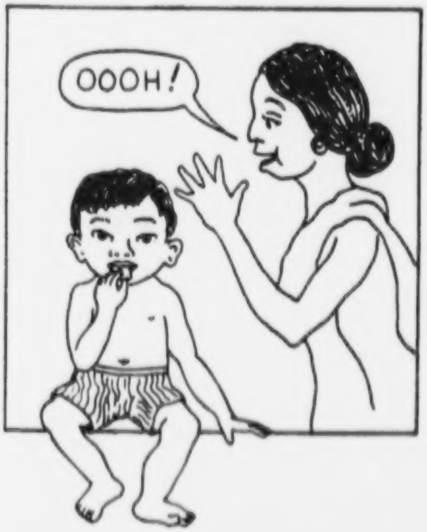
- *Biscuits*

Biscuits are an easy food to use for most children to learn to feed themselves. A *physical prompt* may be needed (see Section 4.3). The prompt can then 'fade' (reduce little by little). To start with, if the child does not herself hold the biscuit, the teacher should put the biscuit into her hand, then put his own hand over the child's, keeping the child's hand closed on the biscuit. The teacher guides the biscuit to the child's mouth. If the child cannot yet bite, use a soft biscuit that crumbles easily in the mouth. If the child likes the biscuit, she will soon learn to take it to her mouth and the teacher can stop guiding the movement. As the pupil's grip becomes firmer, the teacher can take his hand away. Many children are able to learn this skill in a single session.


NO, HE CAN'T FEED HIMSELF. HE ONLY HAS MILK AND MUSH.

Parents do not always think that their child can learn a simple skill.

If the child does not like one biscuit, try another sort, or other food that can be firmly held in fingers. Once the child can eat a biscuit, he soon learns to eat other food that is easily picked up, e.g. small pieces of bread, dried fruit etc.



*** *Using a spoon***

Task analysis (see Section 4.6) divides *spoon feeding* into the following steps:

1) pick up spoon.
2) take spoon to food on plate.
3) push spoon into food.
4) lift food on spoon.
5) take food on spoon to mouth.
6) take food into mouth, off spoon.
7) repeat from step 2.

At step 6, the child is 'rewarded' by getting the food. So the first step to teach is step 6, and the others steps are taught in backward order, so that the child continues to be well motivated each time by always getting the reward. But the child should *hold the spoon* from the beginning of the session, whichever step is being taught. The teacher may have her hand over the child's, holding the child's hand closed over the spoon. Step 5 can be divided into smaller steps: at first the teacher releases her hold of the child's hand one inch before the mouth, then three inches away, then six inches, then releases as soon as the spoon has taken up some food.

Teaching a handicapped child to feed himself is likely to be messy. This will improve with practice. Normal children also go through a stage of 'messing' with their food: it is a normal developmental stage.

* *Meal-time Models*

Children learn to eat the way adults eat, whether by breaking off a piece of chappati and picking up food in it, or by using knives and forks, or making balls of rice and dipping them in sauce. Whatever the method, children learn mostly by watching and copying what other people do (called *modelling*).

So children need to see what other people do when they eat. To learn to behave at mealtimes as adults behave, it is best if children eat at the same time as the adults at home. They will copy what they see the adults doing, with a little prompting (verbal or sometimes physical). Where it is not the normal custom for children to eat with adults, the children should at least be able to watch the adults eating, or they should eat with older children who have learnt good eating behaviour.

In school, the teachers may also eat with their pupils. If not, they should sit with them at mealtimes to teach feeding to those who need it, or to talk with the pupils about their food. It is not useful for the teacher to stand over the pupils at mealtimes barking orders at them. Nor should the teachers go off and talk together, leaving the pupils to eat without supervision. Meal-times can be a very useful and enjoyable time for learning.

12.4 PROBLEMS WITH FEEDING

* *No interest in food.*

A normal baby from the earliest age shows interest in food. If fed from a bottle, she smiles on seeing it and tries to hold it herself. If he takes mother's milk, he shows his interest in many ways. If a mentally retarded child shows no interest at all in food, his attention must be drawn to the food: showing it, hiding it and bringing it out, making him pat and hold his feeder, talking to him while feeding him. The aim of these activities should be to get him to open his mouth in recognition of food, and to develop enough interest to be motivated to learn to feed himself.

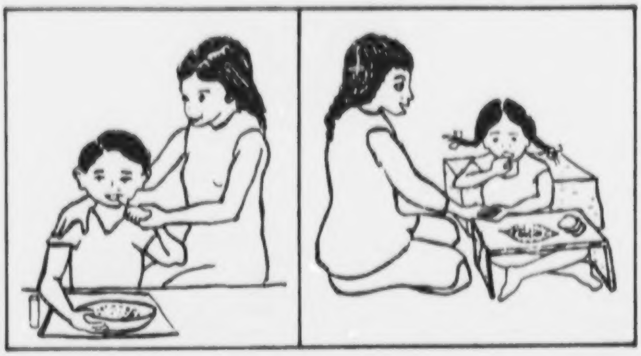
* *Fussy feeding.*

All children have some foods which they dislike and do not want to eat. This is normal and should not be regarded as a problem. But some mentally retarded children take such a *small variety* of foods that their health is at risk. Children need a good variety of foods to keep healthy.

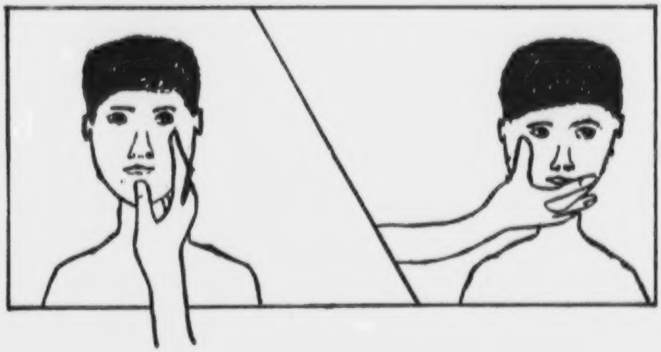
When aiming to increase the variety of food that a child takes, it is best to start with food having a taste *similar* to what the child already likes. If she likes only milk, for example, start with yogurt, cereal cooked in milk (rice or suji) or ice-cream. Give small amounts of the new food, then reward the child with what she likes. It may help if the child gets some other non-food reward whenever she takes a taste of the new food, e.g. the teacher sings a song, or lets her hold a favorite toy. A child may lose her food 'fads' when she starts going to school and sees that other children enjoy eating many sorts of food.

### * *Physical disabilities*

Children with physical disabilities, especially those with cerebral palsy, should always sit to eat food and to drink. If the child is lying down, or if the head falls or is bent back, it is harder for the child to swallow. Apart from the difficulty, there is also a risk of choking or of food getting into the lungs and causing infections. (See also Appendix V).



Some children find it hard to control their mouth movements, in chewing and swallowing. To help a child to chew, place the food (e.g. a piece of bread) between the teeth at the side of the mouth, support the jaw by putting a finger to gently press upwards on the jaw, with another finger on the jaw joint. The teacher should not move the child's jaw up and down, but if she makes chewing movements herself, the child may be helped to imitate.

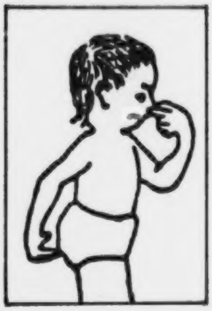


12.5 TOILET

The aims of toilet training are that the pupil (a) should know when he needs to use the toilet; (b) takes himself there when he needs to; (c) uses the toilet with a good level of hygiene and cleanliness.

Some special schools will not enrol children unless they are toilet trained. There are some teachers who do not consider it part of their duty to do toilet training. Both these attitudes are *unfortunate* and *unprofessional.* Every teacher of mentally handicapped pupils should be able to advise parents who want to toilet train their child at home. The advice can be useful *only if it is based on the teacher's own practical experience.*

Many children with mental handicap learn to use the toilet without difficulty, within a few weeks of starting school. Seeing what the other pupils do, they start to use the toilet or pot when placed on it. Then they learn to tell whenever they need to use the toilet. The 'sign' in use at school need not be so frank as the one used by the child in the picture !



To begin with, the child may tell when he has already wet or soiled himself. Do not be angry or impatient. Do not make any fuss. Just change his clothes calmly. It is usual for children of normal ability to learn first to tell when they are already wet or dirty. Later on they learn to tell that they are just going to produce a stool (*shit*). Later still, they know that they are just going to produce urine (*water*).

Sometimes an older mildly retarded child may not be toilet-trained, simply because she does not know that people use the toilet - in cities, it is not something a child normally sees other people do. If someone models the use of the toilet, she should quickly learn to do the same herself.

# Planned Toilet Program

Children who are more severely handicapped often need a carefully planned program to learn to use the toilet. It is not always possible to teach these children to tell an adult when they need to use the toilet, but they can be taught to use the toilet/pot when they are placed on it.

To start the program, watch the child closely for a few days, taking notes of the times when he is wet or dirty. (Check him every 5-10 minutes). If there are regular times when he is wet or dirty, place the child on the toilet/pot shortly before these times. It is usually easier to find a regular time for stool and urine. It may be possible to tell from the child's face when he is starting to pass stool, and he can then be taken quickly to the toilet.

As soon as the child produces something when she is sitting on the toilet or pot, she should be given a reward with plenty of praise. (If the reward is not given until 5 minutes later, she may think she is being rewarded for sitting doing nothing, instead of for using the pot.) IN A TOILET PROGRAM, NEVER LEAVE A CHILD SITTING ON THE TOILET FOR MORE THAN 10 MINUTES.

If the child does not have regular times for passing urine, put him on the pot for up to 5 minutes every hour (or even every half hour). Again he must be rewarded immediately on producing. If some crumpled metal foil is placed in the pot it will make a noise when urine is passed onto it, so that the teacher or parent can give a reward immediately.

The toilet program should be an enjoyable activity. The child should never feel that he has been left sitting on the pot without any attention, or as a punishment. The teacher may give a little reinforcement such as a smile or a few words of encouragement while the child is sitting, and then give a bigger reward when the child produces. It is usually not helpful to play with the child while he is sitting on the pot, as this may distract him from the main lesson of learning to *use* the pot and being rewarded for doing so.

The child should learn that she will be rewarded for passing her stool and urine in the pot or on the toilet. She should not get any special attention if she wets or dirties her clothes. If it happens, do not punish her in any way, but simply change her clothes without any fuss. Do not scold or talk or sing to her while doing so, otherwise the child may think that this is a good way of getting attention.

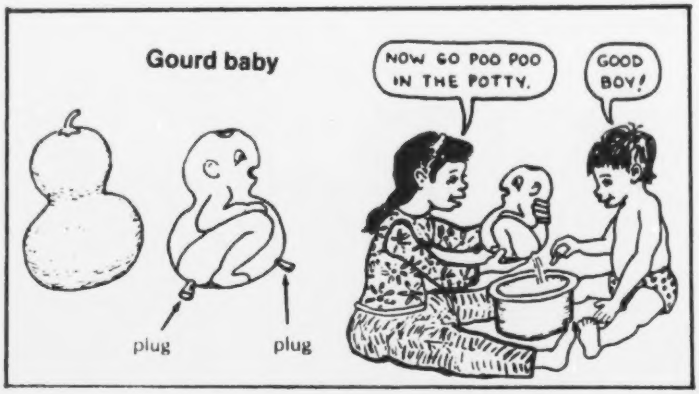
If a child refuses to sit on the pot, the teacher will need at first to give a (small) reward for doing so. In this case the teacher may talk or play with the child while he is sitting on the pot. When the child produces something, a special reward should be given, e.g. a sweet or a piece of biscuit or fruit. The teacher should then continue playing with him for a few minutes after taking him off the pot, so that the child does not see his (small) reward stop as a result of using the pot.

Toilet training is not complete until the child has learnt to clean his body afterwards in a socially accepted way and then wash his hands. The person who shows him how to clean himself should *model* the actions and should also *say* what is done.

Task analysis and backward chaining may be used, e.g.

(1) fill *'lota'* with water; (2) take lota in hand; (3) squat over toilet; (4) pour water on part of body; (5) put down lota; (6) tear off a piece of toilet paper; (7) take paper in left hand; (8) wipe part of body; (9) drop paper in toilet; (10) repeat until clean; (11) pull up clothes; (12) wash hands carefully.

Children may be helped to learn about toilet activities by play with dolls, putting them on a toy toilet and cleaning them afterwards. This may also be of use in explaining to parents how the toilet program is done in school, so that they can do the same at home.



When a family does not have a toilet at home, and they use a field or open space, their child may be unwilling to use the school toilet. For reasons of health and hygiene, all children should be taught to use the toilet when at school. New pupils who are already able to take themselves to the toilet should be *shown where it is* as soon as they start school. They may not know how to ask for it, and so they might have an embarrassing 'accident'.

Older pupils should learn what to do when they need a toilet away from home or school. They should know how to use public toilets and those in hotels or petrol stations, if available. They should be taken to use them while on outings from school. They should also know what to do if no toilet is available, i.e. to go out of public view, behind a bush or wall.

Sometimes a child who has been toilet trained for a long time may start having 'accidents', i.e. to wet or dirty himself. This may be caused by some physical illness, or it may be a side effect of medicines, or the child may be worried about something. For example, there may be a new baby in the home and the older child feels he has lost his mother's attention; or he may have heard his parents quarrelling. Try to find out from parents or the pupil herself what is worrying her. Give her time to talk about the problem, perhaps using puppets or dolls to tell what happened.

Parents may complain that the child wets his bed at night. Advise them not to give the child drinks in the evening, and to wake him up and send him to the toilet after he has been asleep for a couple of hours. Not all children can be helped by this, but many are. At very hot times of the year, drinks should not be restricted.

A boy who is physically disabled and unable to move himself to the toilet may learn to pass urine in a plastic bottle. The use of this should be demonstrated to him by a brother or another boy. For discussion of other aids for physically disabled children see Appendix V.

12.6 WASHING & GROOMING

A child can be taught to wash and dry herself, clean her teeth, tidy hair etc. with a combination of these methods:-

- Modelling: the child should see other people washing, cleaning and drying themselves.
- Task Analysis and Backward Chaining: breaking the skill into many small steps and teaching them one by one, starting from the final step and working back.
- Play with dolls, to see how different parts of the body are washed and cared for.

It may also be appropriate to teach some older pupils to wash and dry their hair and use scissors to trim moustache.

Older girls may learn to put on a little make-up. They should also talk about its uses, where and when it is suitable, why too much of it looks bad etc. Girls must be taught to look after their "feminine hygiene" and what to do with used materials. A woman teacher should prepare herself to talk about these matters with older girls and with mothers.

If it is usual in a family for men to shave themselves, a boy should also learn how to shave himself, using a safety razor. Otherwise, he should learn how to behave correctly when visiting a barber.

12.7 DRESSING SKILLS

A pupil who is learning to dress herself needs plenty of time and opportunity to practice. But when children get dressed at home in the morning it is a very busy time for most mothers. They do not usually have time to teach their children to dress themselves at that time. So the school must give pupils time and help to learn to dress and undress themselves, and should also let mothers know when their child learns a new dressing skill, so that they encourage the child to do it at home.

The dressing skill that pupils most often need in school is to take down and pull up shalwar/trousers/knickers in toilet. This is such a useful skill that it should be taught first. It is good if trousers or shalwar have elastic waistbands rather than fasteners (e.g. zips, hooks or buttons) so that the pupil can more easily be independent in the toilet. Use of fasteners is a harder skill which the pupil will not learn until after she can put on all the basic items of clothing.

A box of 'dressing up' clothes is useful. Many of the clothes in the box should be too big for the children - this makes them easier to put on and take off.

In winter, pupils should take off coats when they reach school, then put them on again when they go out. Putting on old shirts for art work, changing clothes for physical education or water play, gives a chance to practise dressing skills. If the pupil is not ready to put clothes on himself, he can learn to cooperate in being dressed. Pupils may learn what is involved in dressing when they play at dressing dolls. Older children may like to help dressing some of the more severely handicapped small children who are not yet ready to learn to dress themselves.

Most children learn to take off their clothes without any special program, just with some encouragement and perhaps some verbal and gestural prompts. Learning to put on clothes however requires task analysis and backward chaining.

Easy tasks should be taught before more difficult ones. Pupils will usually find it easier to learn to put on a large, loose, sleeveless waistcoat, before they learn to put on a coat, sweater or shirt with sleeves. When the pupil can put on upper clothes which open down the front, he should learn to put on clothes which go over the head. Start with a large sleeveless vest (with a big opening for the head.) When the pupil can put this on easily, try clothes with sleeves.

Socks are easy to take off, but many children find them hard to put on. Large loose 'practice socks' can be made by cutting off the sleeves of an old sweater and sewing up one end. (See Section 4.5 for task analysis of putting on a sock).

Task analysis of a method to put on a shalwar (with an elastic waist band). The steps should be taught using backward chaining.

1. Pick up shalwar, holding top edges.
2. Sit on upright chair.
3. Hold shalwar against legs, with front away from body.
4. Lower shalwar towards ground.
5. Open top edges.
6. Put left leg in to shalwar, taking care to put into correct leg-hole.
7. Push leg through until foot comes out at bottom.
8. Put right leg in, taking care to put in other leg-hole.
9. Push right leg through until foot comes out.
10. Pull top of shalwar up above knees.
11. Stand up, keeping hold of shalwar.
12. Pull top edge of shalwar up to waist level.
13. Arrange shirt/kameez correctly.

The pupil will not be taught to put on his shalwar until he is already able to pull it up and down by himself at the toilet, i.e. he should be capable of steps 10/11/12/13 before starting the task above. The teacher should prompt the child through steps 1 - 9 (physical prompts if needed, but for some children a verbal prompt may be enough), and the child does steps 10 - 13 himself, with encouragement. When he can do this unaided he will learn step 9, and then step 8, etc.

A method for putting on a coat

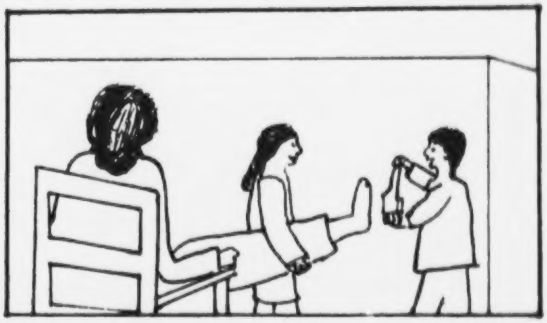
1. Pick up coat at top.
2. Put coat over shoulders.
*3. Hold left front edge in right hand.
4. Find left sleeve hole.
5. Put left hand into left sleeve hole.
6. Push left hand through sleeve.
7. Pull coat up on left shoulder.
8. Bend right arm to find right sleeve hole.
9. Push right arm in right sleeve hole.
10. Push right hand through sleeve.
11. Pull coat forward on shoulders.

* The pupil should always put her weaker or less coordinated limb in first, whether this is left or right side.

Children will find it easier to start with a loose fitting garment with loose sleeves, which does not slip off the shoulder when the first arm is being pushed in to the sleeve. It helps if pupils have first learnt to put on a sleeveless waistcoat. Pull-over sweaters, vests and shirts may be pulled over the head before the arms are put in, or the arms may go in first and then the head. Loose and sleeveless items are easier to begin with.

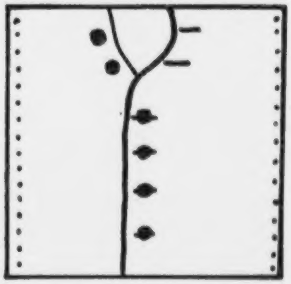
Children need practice, but they will be unhappy if they are asked to put on and take off clothes too often. If the pupil is learning to put clothes on, the teacher may first undress him (even though he can do it himself). This little personal attention will encourage the child to go on learning.

As a change from putting on their own garments, pupils should help the teacher to put on her coat, sweater or sock, telling her what to put next, or doing it for her if she pretends not to be able to do it herself.



* Buttons. The pupil must have quite advanced "fine motor" (small movement) skills before being able to handle most sorts of fastener. It is best to start with big buttons (the bigger the better). Task analysis and backward chaining may be needed, but more able children can learn after modelling with only verbal prompts. When the child easily handles big buttons, gradually use smaller size buttons.

* Practice Boards. Buttoning boards with graded sizes of buttons are useful to start with, as the pupil can more easily see what he is doing. But the cloth is held together differently on a practice board, as compared with clothes that the child is wearing. The hand positions are different. It is also useful to make a set of waistcoats with different sized buttons which the pupil can practise doing and undoing. Other fasteners can be taught with practice boards. Remember that the pupils find it hard to generalise skills. They may have learnt how to do the buttons on one piece of clothing but may still need help doing the buttons on other clothes, though they should learn the second set more quickly.



* Cords and laces. Again use task analysis, backward chaining and prompting - perhaps a physical prompt, but a verbal prompt may be enough. Tying cords on a practice board is a useful start, but probably will NOT generalise to shalwar cords and shoelaces. These will need to be taught separately.

Teachers should talk with older pupils about choosing suitable clothes. The teacher may take pupils to the bazaar and discuss the clothes they see on sale.

Washing clothes and cleaning shoes may also be included in the activities of the school.

Even very severely physically handicapped children can be taught to dress themselves independently. (See Appendix V)

12.8 GOING OUT AND ABOUT

Pupils should be taken shopping, travelling on public transport (bus, wagon, train), to eat out and to public functions, on outings from school. But going out in a well-supervised group is not enough to teach a pupil how to do these things by herself. Pupils should be given responsibility on outings: to go alone to the stall to buy whatever is needed; to buy tickets when using public transport; each pupil buying his or her own entry ticket to zoo or museum etc.

To build up children's confidence to do these things alone, a pupil may go out with a teacher supervising him at a little distance. They may sit separately in the bus or restaurant, the teacher watching from a distance while the pupil goes into shops - the teacher not interfering, but being near if the pupil gets into any difficulties.

* *Road safety* is vital for pupils. They should be taught a drill (routine) for crossing the road safely, and how to walk safely along busy streets. They may start with play in the classroom, with toy cars and dolls. Then they should be taken to practise their drill on quiet streets before using busy roads. Older pupils should know that they may see people acting unsafely, but should not copy them.

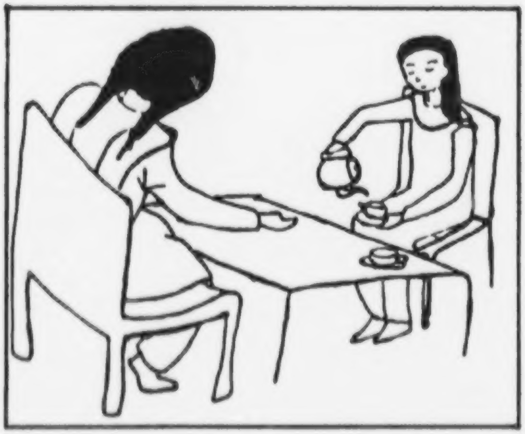
Pupils should have some knowledge of their surroundings, how to get around the town, where are the important places, like the bus station, the post office, the hospital. They should know what to do and where to go *if lost, or in an emergency.* If a pupil has a telephone at home, she should know where to go to make a telephone call and how to use the telephone.

As well as outings, teachers and children should discuss how to behave in public, with role play, dramatic acting out of situations and stories about how to cope with various situations that may happen. Pupils should know how to behave if approached by the *police*. It is useful if a policeman (in uniform) visits the school and talks to the pupils, letting them ask him questions, (or they could be taken for a visit to a police station).

* Avoiding Trouble. Parents are often unwilling to let young people to go out alone, in case they get into trouble. Older pupils should learn to avoid political demonstrations and fights. They should know how to deal with a person who tries to involve them in illegal or immoral actions: it should be discussed, with acting-out role play and stories, e.g. what to do if offered a lot of money to carry a packet of drugs to another town; how to get out of the situation without danger. Male teachers should discuss with boys how to avoid homosexual approaches. Female teachers should talk with older girls about what to do if spoken to by a man whom they do not know, and why they need to behave modestly when in public.

Pupils should talk about and act (maybe using puppets) socially correct behaviour on meeting people and know the level of politeness used with different people. They should also understand the right way to behave with people of the opposite sex - always with respect and a sense of responsibility, but the kind of behaviour considered proper varies a lot from one culture to another. Role play, puppet play stories and discussion are useful for learning these things.

Pupils may hand out refreshments at parent meetings and other functions, as part of learning how to behave towards guests. Pupils may discuss and act out the duties they may need to perform at weddings and other family functions.



12.9 AT HOME

Pupils should be taught at school some skills that will help them to be useful at home, e.g. keeping their things tidy, washing dishes, sewing, cooking, care of smaller children, washing and mending clothes, cleaning a room. They may also learn some gardening skills (including care of tools) and care of animals. It is good if they know a safe way to light fires and gas-cookers, and how to change a light bulb *safely*.

Older pupils should know whom to contact in an emergency. For example, what should a girl do if she is at home with one other person who suddenly becomes ill.

Pupils should be aware of health problems - to know what sort of problems need a doctor but to deal themselves with small problems such as a splinter or little knife cut. Pupils should also be aware of the need for regular bath/shower etc.

They should be able to take responsibility for simple checking tasks: check doors locked, lights off etc.

Pupils should also have some spare time activities, otherwise they may become bored at home, resulting in problems. Teachers should try to encourage parents to allow their retarded child to make friendships with other children, and to go out with brothers/sisters as far as possible.

* Vocational activities. Some may be taught in school, but if parents know what skills they want their child to learn they may arrange for a craftsman to teach them. The teacher should then be prepared to visit the craftsman and give some hints on how best to teach the pupil, helping if any problem arises.

13.0 ART, MUSIC & FOOD

13.1 GROUP WORK AND TIMETABLE

Most of the work already described - language and communication, number, reading and perceptual skills - will be done by children working singly or in small groups (alongside children doing different tasks). Other work done individually or in small groups includes "fine motor" activities (using small precise movements, such as cutting out); pre-vocational activities such as learning to handle tools, do sewing; daily living skills such as doing up buttons and fasteners etc.

Through the school day, regular changes of activity should be made so that pupils do not get bored. But change should not be made thoughtlessly, just because it is 10 o'clock and the timetable says that a different activity should begin.

In this chapter, activities are described that should be a regular part of the school curriculum and may involve larger groups or the whole class.

13.2 SAFETY MEASURES

Some of the following activities involve some risk of accidents, e.g. when pupils are using knives or hot oil in food preparation, or are doing movement exercises. Teachers should try to develop "accident prevention" awareness, moving furniture, cooking pots, sharp objects etc. so as to make accidents less likely. With older pupils, efforts should be made to increase the pupils' own awareness of dangers.

* Emergency ! As well as these safety measures, the teacher should have a clear plan in mind, agreed with the school management, of what to do if an accident happens, e.g. keep calm, send for help, use first aid kit, take child to nurse or hospital, make sure other pupils are still being supervised, inform parents, make written note of incident etc.

13.3 FOOD PREPARATION

Most children are interested in food and will enjoy cooking and eating it. Pupils will show more interest and learn more quickly about colours, sizes, counting, weighing etc., if they are able to use these terms in talking about items of food, as compared with counting bricks or talking about buttons.

Learning to prepare food is a useful skill for everyone. Pupils will be able to help at home in preparing meals, and after practice they may succeed in preparing meals unaided. Families are very happy when girls learn to cook food, but boys can also learn a lot from these lessons.

Pupils should start by making simple things, doing simple tasks such as spreading sandwiches, shelling peas, cleaning rice and lentils, cutting tomatoes. Care must be taken over *cleanliness and safety*. Hands must be washed before food preparation, and kitchen tables kept clean. Pupils should be taught careful handling of hot pans and sharp knives.

Good hand control should be practised, before pupils learn to use sharp knives. Special care should be taken to avoid accidents with hot oil or ghee, and also when pupils are learning to light the gas. Even more care must be taken if a child needs to learn to light a kerosene cooker. They will need to handle this if it is the normal way of cooking at home, but it should be attempted only by sensible pupils.

Children should eat in school the food they have prepared. At this time the teacher can concentrate on teaching those pupils who cannot yet feed themselves to do so.

Time should be given to food preparation at school on a regular weekly basis.

13.4 ART WORK

'Art' includes all activities, other than writing, in which the child makes marks on materials. 'Painting' and 'drawing' can include scribbling and making marks. This 'art work' is something that the child herself has done. She must know that it is valued by her teacher.

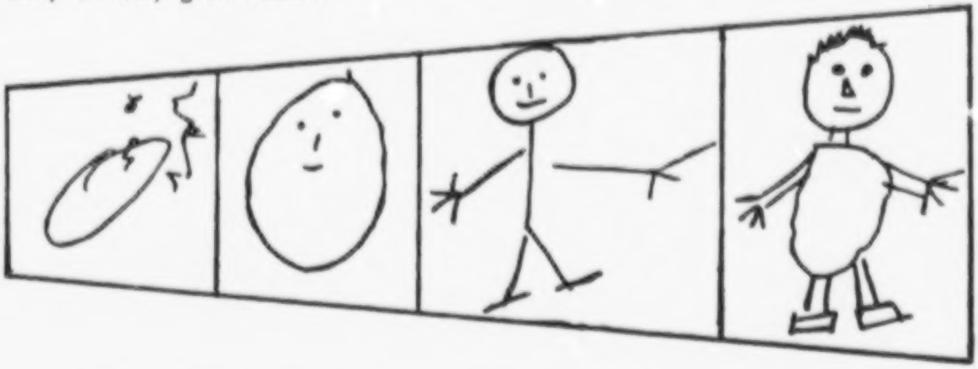
Art work is useful for many reasons. It gives practice in controlling hand movements - handling brushes, clay, dough etc. It helps with communication skills - children can be encouraged to talk about their work. Pupils with poor language ability can sometimes use drawings and paintings to *express their thought and feelings* - so can children with emotional problems. A pupil who has passed the stage of scribbling will think about what he wants to do, and so begins to *plan and organise his thoughts.* Colour, pattern, space, length, number, size and relative position are all experienced by the child in creating his picture. Symbolic representations of objects, actions and ideas may also be included.

- That's My work ! Pupils' art work should be valued and appreciated. This will build confidence. The teacher should therefore praise art work and display it in the classroom (fixed to a wall or cupboard) for a few days where the child can easily look at it - fixed at or below the level of the child's eyes. Art work should be something that every pupil can enjoy - even the most severely handicapped child should be able to produce some successful work.

This is different from 'Art' as traditionally taught in most schools of Pakistan and some other countries..

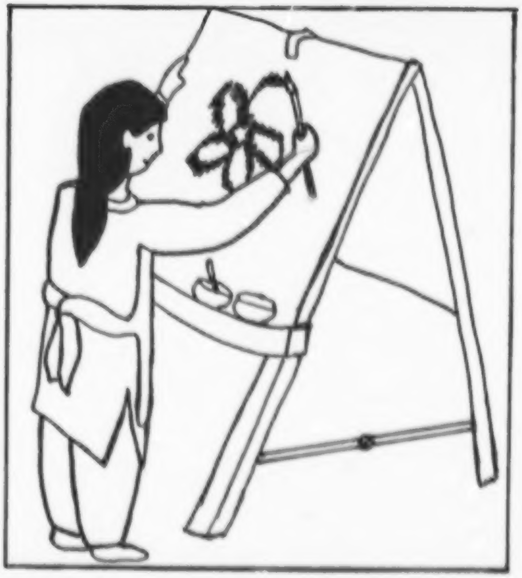
'Art' as traditionally taught is usually no more than copying a teacher's drawing. In Chapter 10 on Reading, we saw that to copy simple shapes is useful in children's perceptual training at a certain stage of development. However, pupils' art work should generally be their own work, showing how they see the world, not how well they can copy. When they are allowed to draw freely, children draw the things that are important to them, things of which they are most aware.

Children should not be corrected for drawing in a different way from adults, although it is good for them to see drawings and paintings made in a variety of adult styles. As can be seen in children's drawings of "A Man", they are first aware of the face, and become aware of the rest of the body as they grow older.



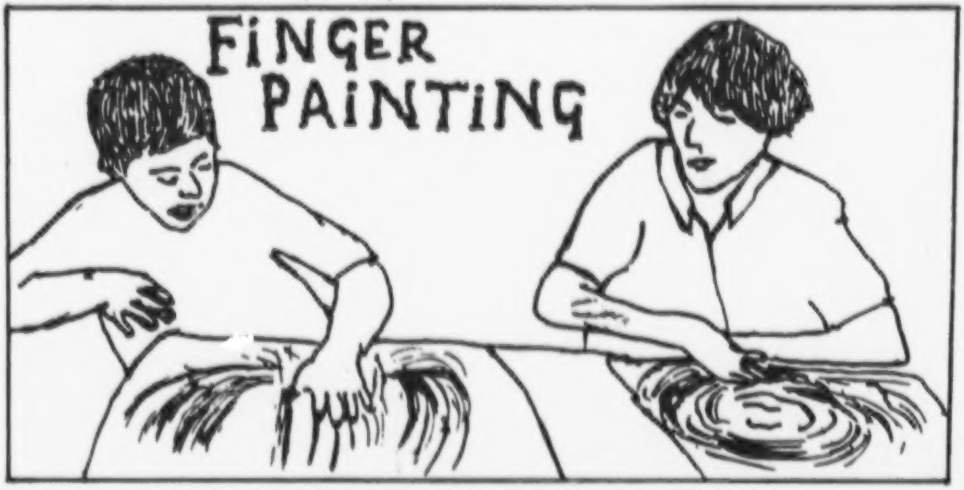
Drawings of a man, by normal child aged 2, 3, 4, 6

A child's first artwork will be marks and scribbles. From a mental age of about 2 1/2 years, children may try to draw or paint people or things. From then on, their art work may be either *representational,* in which a thing or scene is represented, or *non-representational* - a pattern of shapes and colours that are not meant to look like any object. The teacher can encourage the child to talk about her work by saying "Tell me about this, Rashida" rather than asking "What's this ?" What the child has drawn may not be any *thing* and yet still may be a good piece of work. Lots of praise should be given for art work.



* Showing Parents.

Pupils usually like to take artwork home to show to their parents. The teacher should try to help families understand the efforts made by their child, so that they will show pleasure and value the work. If parents fail to do so, if they soon throw away the artwork, the child will be discouraged and may lose interest in her work. If it seems likely that parents will not show appreciation, the pupil should only seldom take home a special piece of work. Displays can be made in the classrooms and school corridors of artwork produced by pupils. When taken off the wall, artwork can be kept in separate folders for each child, to be shown to parents when they visit, or on Open Day.



* Paper Children should be given a variety of materials to work with. Sheets of paper should be of large sizes - at least 18" x 11" (45 x 28 cm), bigger sometimes, and for small children as big as possible (18" x 23" or 45 x 60 cm) Paper should be used in various positions, e.g. on the table, on the floor, pinned to the wall, on an easel. Different coloured paper may be used, if available.

* Paints Non-toxic powder paints are most useful. (But not boxes of water paints, which are suitable only for a few more capable older children). For finger painting, powder paint may be made thicker by adding flour and salt (the salt stops mould from growing on the flour). Food colouring with flour and salt may also be used. Older pupils may use small pots of household paint, but these should not be given to pupils who might eat or taste them.) Care must be taken to clean paint off brushes after use and to protect clothing.

* Crayons Younger and severely handicapped pupils should use crayons that are thick, easy to hold and non-toxic (not poisonous). Older children may use ordinary wax crayons.

* Brushes For painting, small pupils will find it easier to handle thick brushes. The smaller sizes of house painters' brushes are more suitable (and cheaper) than artists' brushes. Older children may sometimes like to use thinner, more precise artists' brushes. Pieces of sponge may sometimes be used for applying paint. Some pupils find them easier to handle.

* Overalls Old shirts (kameez) should be available to wear as overalls for protection - especially useful when finger painting or using household paints. They should be as large as possible, to cover the ordinary clothes, but with sleeves cut back in order not to get in the child's way.

* First Marks Younger and more severely handicapped pupils simply make marks on the paper, with no meaning intended. They should often finger paint, with fingers or hands directly on the paper. Sometimes they should paint on to a formica topped table or washable plastic surface. Paper can then be pressed on top as a kind of printing. Hand prints may be made where the whole hand is lightly covered with washable paint and then pressed on paper. Foot prints may be made in the same way on the classroom floor.

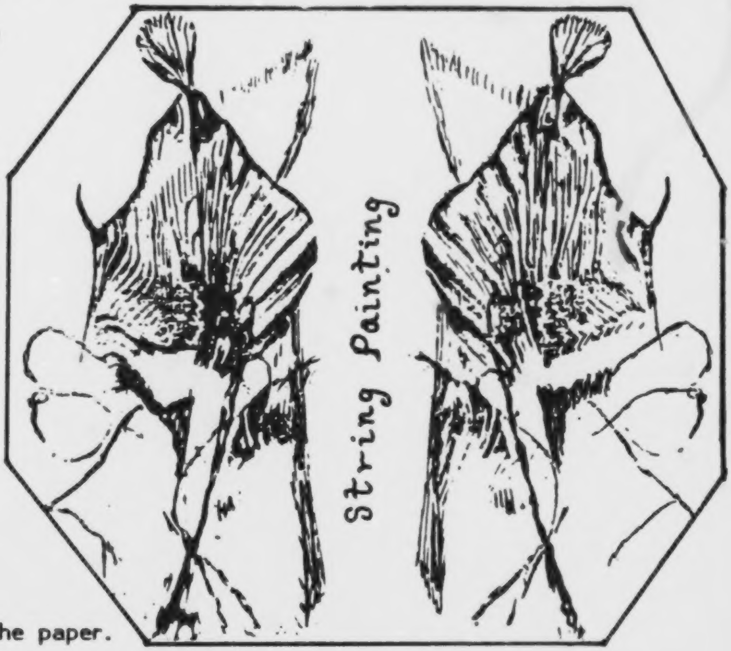
* Scribbling Children develop from making simple marks to scribbling. This begins as an up and down movement. Later, circular movements develop. If the pupil always scribbles up and down, the teacher

should encourage and show her how to draw circles, sitting beside the pupil. Pupils should be allowed to use either or both hands, as they wish.

* Printing Older and more able pupils will often paint with brushes or sponges or use crayons. However they should sometimes do other kinds of work too, e.g. printing, and hand prints where they compare the size of one another's hands. Pupils may make prints from various materials. Cut a potato in half and cut a design or pattern on one face. This is painted and then pressed to the paper, the colours being varied to make a pattern. Other vegetables may be used too. Leaves may be painted and pressed on the paper: also pieces of wood, cloth and other materials.

* Variations *String painting*: pieces of string, dipped in thin paint, are placed on a paper which is then folded over. The string is then pulled out, while the paper remains folded. Repeat with various colours.

Blow painting: a little thin paint is sucked into a drinking straw and dripped onto paper. Then the child blows through the straw, moving the paint about on the paper.

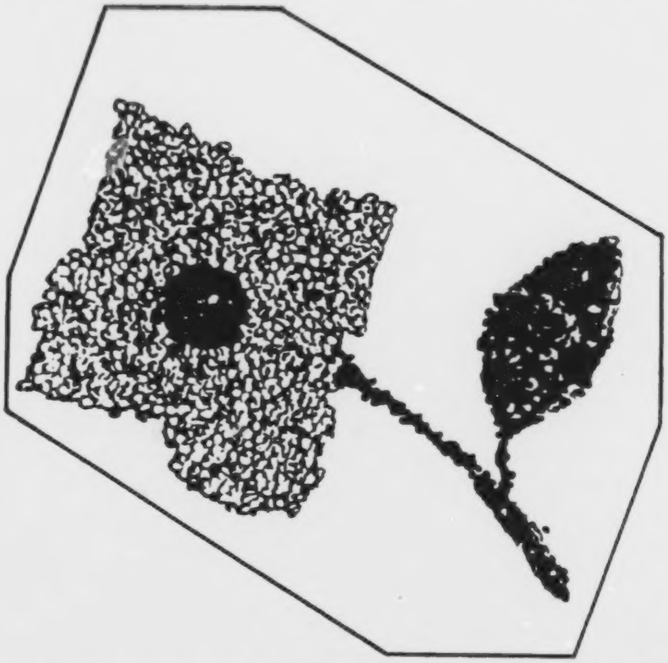


Interesting artwork may be made by drawing a pattern on paper with a wax crayon or a candle, then painting over it. The paint will not stick to the wax.

* Shapes & Themes Objects may be placed on paper and then drawn around. An extension of this is to stick several lengths of paper together on the floor, place a child to lie flat on the paper, then draw round his outline. He can then colour in the shape. All the pupils in turn can be drawn in outline and then coloured in.

When children begin representational drawings they usually start with people, cars and other objects. Suggest to them that they paint things seen on outings, or themes that are being studied in class (e.g. various fruits, animals etc. - see Section 14.4, 'General Knowledge').

* Collages   Another type of art work is made by sticking things on a background material. The more severely handicapped pupils may tear newspaper or coloured tissue paper and then stick it on ready gummed paper. The more able pupils may themselves place the gum where they wish and use a variety of material e.g. small pieces of cloth, lentils (as shown in the picture of a flower), peas, flowers and leaves, spaghetti, sequins, buttons and beads, etc.



* Three Dimensions   Pupils can make shapes from clay, or just roll and flatten some clay, plasticine or dough. Clay has a good feel and consistency for children to use. (Clothing should be protected). Plasticine may be too hard for some children to use easily. Dough is very useful with small children. (Equal amounts of flour, salt and water, mixed to the right thickness. Use plenty of salt to stop the dough from going rotten quickly. It also discourages pupils from eating the dough). Children find it interesting to try pressing coins or other small objects into clay, plasticine or dough, making an impression in the same way that seals do in warm wax. Three dimensional models may also be made by glueing together scrap materials, cereal packets, yoghurt pots etc.

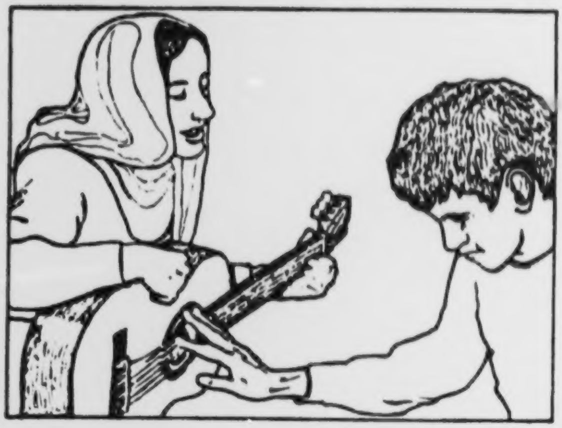
Some teachers find it useful to have an 'Art Table' in their classroom, where a pupil may work for as long as she wishes during times of individual work. Other teachers prefer to do art work with the whole class together. If an Art Table is used, there should be water nearby for the pupil to wash her hands and brushes on finishing. If there is no water in the classroom, a bucket should be kept by the table, placed in a large basin to avoid spills.

13.5 MAKING MUSIC

Mentally retarded pupils enjoy music as much as other people do. A pupil's enjoyment of music may motivate her to learn other things. Shy or withdrawn children will often join with other pupils in music and singing and may even perform alone. Pupils who find it hard to hold things may grip musical instruments. Children with delayed speech will often *sing* words before they *say* them. Pupils can take part in music classes through playing instruments, dancing and singing. In areas where 'dancing' is culturally unacceptable, other forms of movement to music can be substituted e.g. marching, physical training exercises with music.

* Variety Recorded music (records or cassettes) is useful so that pupils may hear many different styles of music and may sing along with tapes, clap and beat rhythm and play rhythm instruments. Music should be played that has different emotional effects: military music makes people want to march, some music makes people feel sad, other music makes people feel happy. If any teacher can play an instrument, the pupils will find the live performance an exciting change from recorded music.

Pupils should be shown how to play drums (tabla), tambourine, bells and shakers (made of beans, dhal or rice sealed in plastic or cardboard boxes); some blowing instruments (simple flute, recorder) and xylophone. Most of these instruments are used to beat a rhythm, but some pupils should be capable of learning to play a simple tune. Some may learn to play tabla well, and should be encouraged to play both alone and with the teacher. Pupils may also handle the



teacher's own instrument - perhaps in individual sessions - to see what sounds they can make.

Shy, withdrawn pupils, and hyperactive pupils, often show a good response to music. They should often have the chance to listen to music and to join in beating rhythm. Children with aggressive behaviour may learn to control their feelings by beating a drum, rather than hitting the other pupils.

- *Movement* During music sessions there should be space for pupils to get up and dance (or march or exercise) to the music - they should dance to different types of music, both slow and fast, quiet and noisy.

- *Singing* This is more fun than talking, and children often sing words before they can say them. Some children sing more easily in a group but some who may be very shy about talking will happily sing alone. *Action songs* are useful with pupils who are starting to learn to speak - and they are fun for everybody. These are songs where pupils make signs with their hands to go with the words of the song. They learn to imitate the actions and also start imitating the words.

- Making up Songs Songs may be made up to teach any words the teacher chooses. Counting songs are very useful for learning to recite the numbers. A child who cannot say numbers may be able to do so after singing the song *"Dhobi aya kapre laya, Kitne kapre laya, Ek, do, tin, char, panch, che"* (The washerman came, Bringing clothes, How many clothes did he bring ? One, two, three, four, five, six), or other similar songs the teacher may make up. It is easier to remember a song than a list of words. Songs can be made to teach the names of parts of the body, together with gestures to indicate where they are. Example:-

Body song

Salim Khan has got two EYES,
  One Two, But he only has one NOSE

Salim Khan has got two EARS,
  One Two, But only one MOUTH

Salim Khan has got two HANDS,
  One Two, But only one HEAD

Salim Khan has got two FEET,
  One, Two, But only one HEART
  etc

Colour Song

This cloth is red.
What things are red ?
Tomatoes and pomegranate.

This cloth is white.
What things are white ?
Milk and the school bus.

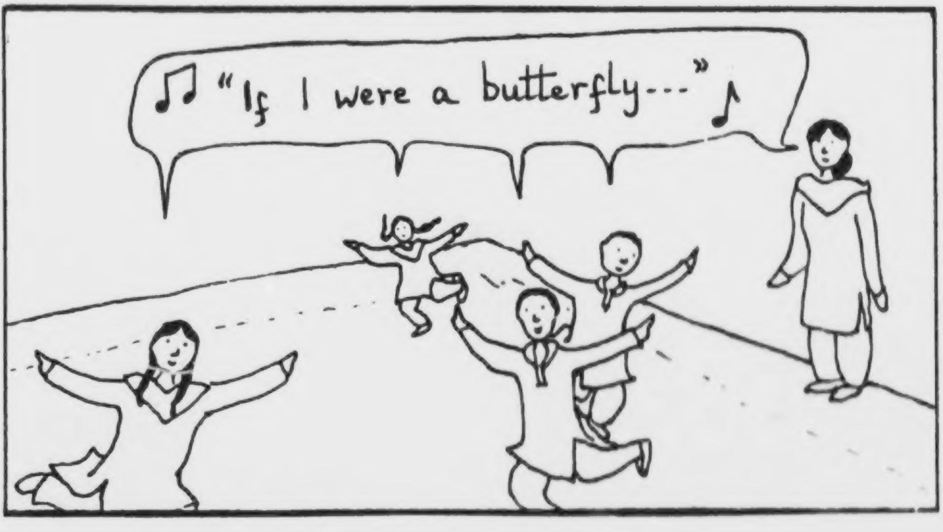
This cloth is green.
What things are green ?
Peas and leaves of trees.
etc

* My Name Song It is good for each pupil to have her own song with her name in it, which is sung during singing class and which she learns herself.

With songs that have harder words, it is good sometimes to get the pupils to sing in turn, to hear that they are correct (but this should not be taken so far that singing becomes a test and stops being an enjoyable activity.)

The children will get the full benefit from music classes only if they see that the teacher enjoys this time too. It will help to keep up their interest.

It is better for music lessons to be taken by a person who understands the pupils' needs and enjoys teaching them, even if that person knows only a little music, rather than by a professional musician who has no understanding of the pupils and comes to play some songs in a formal way. If someone other than the usual class teacher takes music classes, this special music teacher should be sure that the class teacher also knows the songs that are learnt, so that they can be sung at suitable moments throughout the day.


♫ "If I were a butterfly..." ♪

14.0 MOVEMENT, DRAMA, & OUTINGS ETC.

Physical activities for mentally retarded pupils can be seen under two broad headings:-

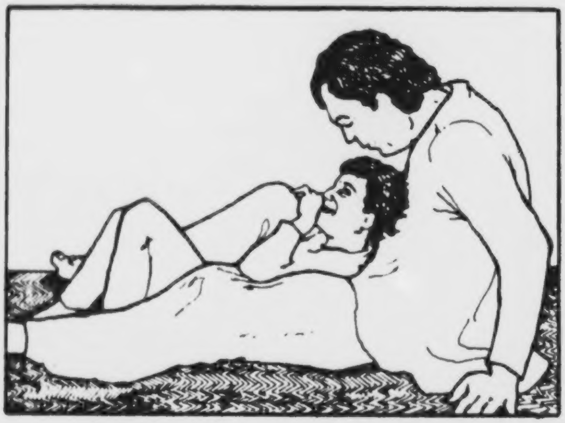
i) Body awareness and Movement Program
ii) Traditional physical training exercises.

Many pupils will also enjoy sports. Where possible, they should take part regularly in playground cricket, football, badminton etc. Sports can improve movement control as well as enabling pupils to take part with non-disabled children.

14.1 BODY AWARENESS & MOVEMENT PROGRAM

People with mental handicap often appear 'different' because they move in an abnormal way, e.g. stiffly, without bending the knees, even if they are physically quite normal. They may have a poor understanding of the parts of their body and how best to move. A well-planned Movement Program can help pupils to move normally and to become more aware of their bodies. Some of these activities also help to develop a trusting relationship between pupil and teacher; some are helpful for pupils with emotional or behavioural problems.

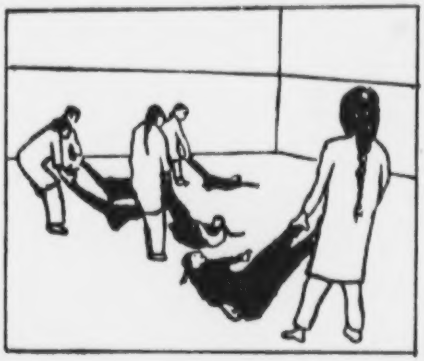
These activities may be done in the classroom if furniture is moved aside, or in a central hall if available (see also p.151). Many of the exercises are done on the floor, which either should be clean and smooth or should be covered with mats.



* Trunk Mentally retarded pupils are often not fully aware of the *trunk* of their body (everything apart from arms, legs, head). Children's early drawings show legs and arms directly attached to the head. To lie flat or roll or creep along the ground makes the child more aware of his trunk and also of the solidness of the floor. Pupils who are anxious and tense are often unable to relax when lying on the floor but when they learn to do so they improve in other ways too. These

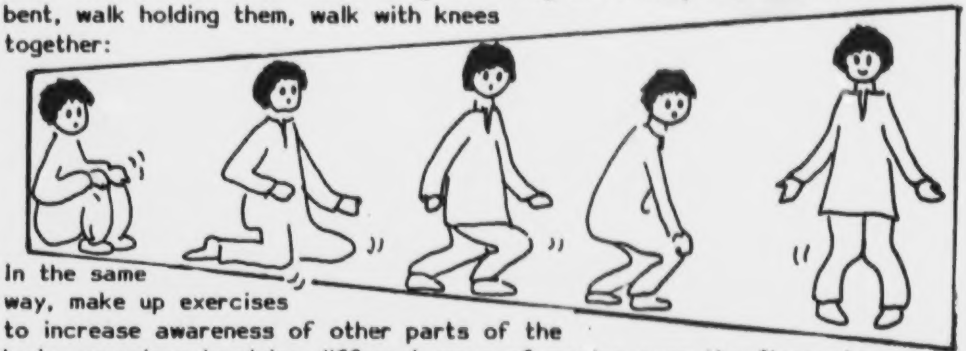
children may start to relax if they are rocked gently from side to side while they are sitting or lying on the floor or in the teacher's lap.

* **Rolling** is especially important in teaching pupils to relax and move more easily. Children are often very afraid of falling: rolling involves a small controlled 'fall' which gives children more confidence. Rolling from a sitting position on to the shoulders and back is a slightly more difficult 'fall' which children learn to enjoy. A child may also be helped to relax by lying on his back and having his ankles lifted and being pulled along gently, swaying from side to side (on a smooth floor - without splinters).



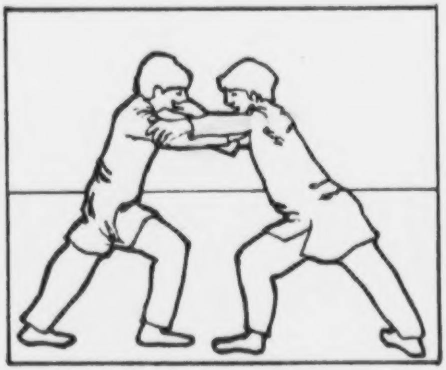
Spinning on their stomachs on the floor helps pupils' awareness of their stomachs. If a child curls up tight like a ball, when the teacher gently tries to straighten him, he becomes aware of his stomach muscles. Doing a somersault over his teacher's shoulder also helps his awareness of his middle - the teacher sits on the floor with pupil standing behind her; the pupil goes forward over the teacher's shoulder, putting his head on her lap and swinging his legs over while the teacher supports by holding him around the middle.

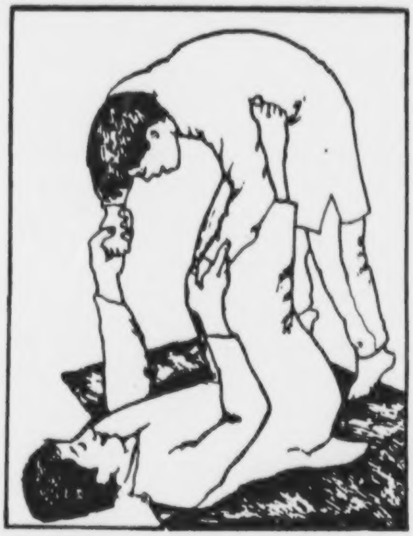
* **Knees** Awareness of knees is very important for normal walking. The simplest way to start work on knees is for children to sit with their knees pulled up in front of them. They can drum on their knees, pat them, rub them. They can push them down and pull them up again. They can slide on them, walk on them, bang them together. They can walk with knees bent, walk holding them, walk with knees together:

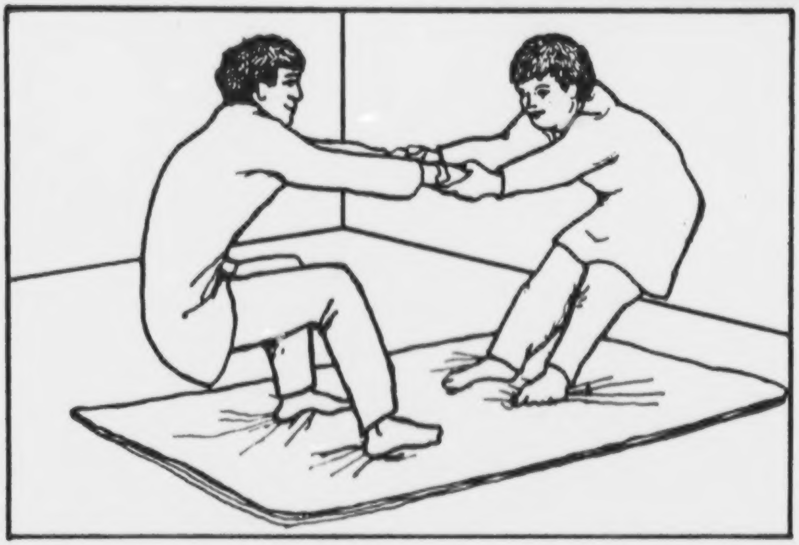


In the same way, make up exercises to increase awareness of other parts of the body, exercises involving different ways of moving over the floor etc.

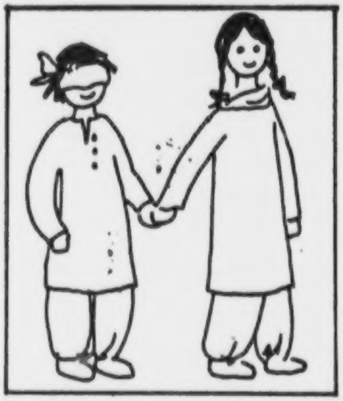
* Strength A pupil can become aware of the strength of his body by taking a secure and stable position and holding himself steady while another person pushes him to try to move him. For example, he may lie face down on the floor with limbs outstreched, sticking to the floor and resisting efforts to turn him over. Pupils may also test their strength in a cooperative, non-aggressive way by working in pairs slowly pushing against one another shoulder to shoulder, back to back, arm-wrestling:







Being 'gentle' e.g. caring for a partner who is blind-folded, leading the partner around and avoiding obstacles. The teacher may allow himself to be led in this way with eyes covered - or even to be picked up and carried by a group of older children.



Similar activities can be helpful for children who have emotional problems. Physical activities help many children to develop relationships of confidence and trust. Babies first form relationships through physical contact - so do mentally retarded children, but often at a later age. A pupil who does not easily relax or trust her teacher may learn to do so if the teacher sits on the ground with the pupil sitting or lying between the legs and rocks her gently from side to side. Some disturbed children like to be picked up and swung to and fro. Somersaulting over the teacher's shoulder, the pupil feels herself supported by the teacher and feelings of trust grow. If they carry the teacher, as a group, pupils feel that they are trusted - a sense of responsibility grows.

Hyperactive and autistic pupils may start relating to an adult who provides enjoyable movements, e.g. holding the child under the arms from behind and swinging him or pulling him along a smooth floor by the ankles, the pupil lying on his back.

14.2 TRADITIONAL PHYSICAL TRAINING EXERCISES

The traditional physical education program should also be part of the regular class activities, though less important than the Movement Program. It provides an enjoyable way for the child to develop copying skills, concepts of direction (up, down, behind, in front etc.) and hand-eye coordination.

Imitating different positions should include:

arms outstretched, arms up, arms on head,
both arms to left side, both arms to right side
left leg forward to touch outstretched left hand
right leg forward to touch outstretched right hand
right leg forward to touch outstretched left hand
etc.

Walking normally –	forward	backward	sideways
walking on tiptoe	"	"	"
running normally	"	"	"
running on tiptoe	"	"	"
very big steps	"	"	"
very small steps	"	"	"
hopping	"	"	"

- Jumping up and down, feet together, feet apart, forwards and backwards, rabbit hops.
- Walking along a line painted on the floor, or stepping on cards stuck to the floor or marks painted there (forwards, backwards, sideways).
- Catching balls, throwing to hit a target (large target and/or large ball for children who find it hard to do this; smaller target and ball for those who do it easily).
- Kicking balls should also have a place in the physical training session.

If children change their clothes for physical activities, it provides a useful time to practise dressing.

Either Movement Program or Physical Training should take place daily. (Movement Program at least twice a week).

14.3 DRAMATIC PLAY

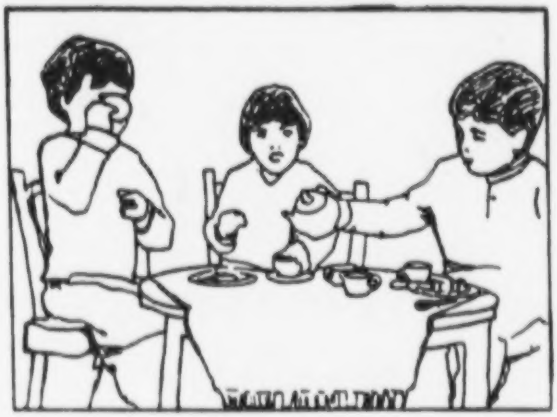
Normal children from about 1½ years old play games in which they copy actions they have seen adults doing - they pretend to do housework like mother, to give tea to dolls or imaginary guests, to drive imaginary cars. Pupils with mental handicap also enjoy and benefit from this sort of play.

Dramatic or Imaginative Play helps pupils to understand what is going on around them and how things are done. Imaginative activities that involve several people, help pupils develop an understanding of language, relationships, control of emotions.

Dramatic play often involves acting out ordinary life situations - playing at doing household tasks, being parents and children, teachers and pupils in school, doctors and patients. In this sort of playing, the child increases her understanding of these situations.

* Coping with Fears. Sometimes a child is afraid of a future situation (e.g. going into hospital) and it may reduce her fears if she acts out that situation. School outings may be remembered by acting them out the next day - or the children may learn more from the

outing if they act out the journey beforehand and prepare themselves for some of the things they will see. Pupils who have family problems can often be helped by acting out family situations, sometimes taking their own role as child, sometimes acting as mother or father or other family member.



* Getting started.

Dramatic play needs no equipment, but a few items, if available, may be used in many ways, e.g. a box big enough to sit in may be a boat, car, bed, table (when turned over); the space beneath a big table may be a house, a lion's cave, a bus or train; the table top may be a shop counter or the seat of a tonga.

Teachers sometimes find it hard to know how to start having dramatic activities. There are many ways in which pupils can be introduced to pretending. Example: when going out to the playground the pupils might be told to line up and march like soldiers - this could lead to playing at being soldiers. Another time they might be told to walk like very old people, one or two pupils helping the others. They might be told to walk out pretending to be ginger cats.

There are many other simple, enjoyable 'pretend' things that all the children can do together, e.g. lifting imaginary heavy weights, blowing up enormous balloons, being policemen who control traffic - this could develop into one or two being traffic cops and the others being cars.

The teacher may at first feel happier to limit drama sessions to about 10 minutes. Later, as she becomes more confident, the time can extend, depending on how the play develops. Slower pupils will enjoy replaying basically the same activities many times with only small variations.

Pupils should not be given long directions of what they must do - they will not remember and may not understand. Anyway, they must be given the chance to imagine and decide for themselves what they will do. The pupils should discuss what sort of thing is going to happen and who will take what part, but should be free to change the theme as the play goes on. Their ideas must be valued by the teacher and they, the children, should make the rules of what happens.

Pupils 'dramatic play' is not 'drama' in the sense of a set 'theatre play'. The teacher should avoid stepping in and directing what takes place. When necessary, the teacher may join in, but *as a fellow player*. The teacher may come in as an authority figure (e.g. policeman) or on a more equal basis to introduce new ideas; but she should remember that the pupils are not 'performing a play' but are *learning in an enjoyable way to deal with an imagined experience.*

- *Plots !*

1) One child may be a cat asleep on the floor, about to wake up, another two are mice playing near the cat. At the right moment, a fourth child might play a dog and then a fifth the owner of the dog.
2) Two children may play the parents of a third child. Then some other children enter in the part of visitors.
3) The teacher might see an imaginary chicken under the table....!
4) The teacher may say to the children "Let's pretend that some paper has caught fire in one corner of the room - what shall we do ?" The teacher should encourage the children to give ideas and act them out.

This is a good way to prepare pupils to handle any sort of dangers that might arise, whether in school or at home, or on the road. They can also prepare in a non-frightening way, for situations like being lost in the bazaar, or having a sandal fall apart while walking - which a normal child could manage, but which might cause a mentally retarded child to panic.

In addition to acting out everyday situations, children will enjoy fantasy play, e.g. being favorite TV characters (Bionic Man/Woman, Uncle Sergum, Policeman Karimdad etc.) or spacemen.

Sometimes teachers feel that their pupils are too young or too severely retarded to take part. In fact, almost all children can act the simplest everyday activities such as going to sleep, putting one another to bed, waking up, eating food and drinking.

From time to time use may be made of dressing up clothes, e.g. uniforms, hats, masks, big black beards.

Down's Syndrome (mongol) children often seem to be especially good at dramatic play and will help and encourage other children to take part. (Short sessions of dramatic play may take place daily, longer sessions weekly).

14.4 GENERAL KNOWLEDGE *('Science')*

Mentally retarded pupils need to be *taught* things about the world that most children find out for themselves. Our special pupils do not learn by sitting and listening to the teacher talk. They need to touch, to handle and to look at things. Those pupils who can talk, should be encouraged to say what they know and to talk about the subject. (The teacher should not laugh at or tease any pupil for saying something that is incorrect; the child will be embarrassed and less willing to talk again. But if the pupils make jokes and laugh together of course the teacher can join in, provided the jokes are not directed against an individual pupil.)

Where possible, outings should be arranged or art work done, to illustrate a subject and make it fresh and interesting. Some subjects may be 'studied' for a month or more, others only for one or two sessions. There is no value in trying to teach mentally retarded children to memorise facts about these things; they need to experience, to ask questions and to learn to think about these things. They should talk about, draw pictures or make models of them, and act out their experience, which will help them to remember what they have done and seen.

Suitable subjects include:-

- *Food:* Different types of food; where to buy it; visit to bazaar to see different shops; seeing foods being prepared; where the things come from before they reach the shop; outings to see food growing and being prepared; (e.g. wheat being ground; boiling up *gur* or molasses). Food is such a big subject that it may be divided up into fruit, vegetables etc.
When talking about milk, a visit should be made to see buffaloes, and to a dairy with butter production etc.

- *Fruit:* What fruits at which times of year; visits to the bazaar and to orchards; different colour fruits; fruits with stones in cr with thick skin, thin skin. Vegetables may be treated in the same way.

- *Animals:* Different kinds of animals; all animals eat food (what sort ?), drink water (from where ?) sleep (where ?) etc. Outings to see different animals. Some animals work, others give meat etc. Dramatic play involving animals.

- *Plants:* Plants may be grown in classroom and garden. They need water, sunlight. Different kinds of flowers, trees - collections can be made of leaves and seeds.

- *Transport:* Different ways of travelling - cycle, tonga, bus, car, rickshaw, motorcycle, train, aeroplane - outings to see different vehicles (e.g. to airport, railway station, bus station), rides in different vehicles e.g. train, bus, seeing vehicles being repaired. Road safety.

* *Eyes, Ears, Nose:* What we see; what eyes look like (drawings); getting around blindfold. Hearing - listening, different sorts of sounds that we hear, recognising common sounds on tape recorder. Smells: of leaves burning, of many sorts of food, of flowers, of glue, etc.

* *Hands and feet:* What we do with our hands - hold things, make things, open things, scratching, touching, feeling (soft, smooth, rough, hard). Whose hands are bigger/smaller, what our feet look like, different shoes, sandals, boots etc

* *How things move:* Fast or slow, on four legs, on two legs, on wheels, what sort of things move; what does not move.

* *Water:* What it is used for (drinking, washing ourselves, cleaning clothes, dishes, homes; cooking, making electricity, milling flour). Where is it found - well, river, sea, rain, lakes. What lives in water:- frogs, fish, snails. Travel on water by boats, ships.

* *Hot and cold:* What things are hot, (tea, gas fire, things being cooked). What things are cold (ice, food in fridge).

* *Seasons:* Summer and winter, warm clothes and cool clothes, food and drink that we take in hot weather and in cold weather.

* *Times of day:* What we do in the morning, in the afternoon, evening and at night.

* *What things are made of: Glass*, e.g. window, T.V. screen, bottles, car windows, mirrors, drinking glasses, spectacles etc. *Wood*, e.g. table, bed, chairs, doors, cupboard, pencils, toys. *Metal*, e.g. knives, forks, cooking pots, scissors, cars, *paisa*, nails, some jewellery. *Plastic*, e.g. cups, shoes, bucket, pen, table cover. *Paper*, e.g. books, exercise books, newspaper, letters, magazines.
Things to handle carefully - glass things because they break, knives because they cut, paper things because they tear etc. Things that burn - wood and paper.

* *Buildings:* What difference is there between a shop, office and house ? How to recognise a mosque, a church. Other buildings e.g. school, fort, police station, hotel, hospital, post office, railway station, *godown* (storehouse), garage.

* *Kinds of work:* Policeman, tonga driver, doctor, teacher, farmer, fisherman, shopkeeper, train driver, nurse, coolie, cook, mechanic. What sort of work all these people do.

* *Sorts of People:* Women, men, children. Mothers, fathers, uncles, aunties, cousins, other relatives; fat, thin, tall, short, speaking different languages.

14.5 OUTINGS

We want our pupils to learn about life outside the school and about normal behaviour. To do this, they should often go on outings (at least once a week). They can go to the bazaar and be given a chance to buy things. More able pupils will learn to handle money, while others will learn simply to give some money in exchange for whatever is bought. (Each pupil in turn should have the chance to hand money to the shopkeeper.)

Pupils will also learn about different kinds of shops, about other buildings in town and anything else they may see. Bus and Railway stations and airport are interesting places to visit. A ride on a train may be arranged. It is good if the pupils travel on a variety of forms of transport, sometimes going out in tongas rather than the school vehicle, or in a small group travelling by public bus.

Trips may be made to the river, canal, lakes - pupils may look for any animals or plants in the water, and perhaps try to catch fish. Drives in the countryside may be taken to see what different things grow there or to see crops and animals.

Visits may be made to parks and gardens, to see different plants, flowers, birds and butterflies - collections may be made of leaves and seeds - seeds may be planted in school grounds. When possible, visits may be made to circuses, zoos or any other places of interest. Visits may be made to see people doing different sorts of jobs - to see houses being built, factories and workshops of different kinds, to talk to gardeners or farmers. Outings may lead to dramatic work or art work, and may be linked in general knowledge themes.

14.6 CRAFTS

It is good for every pupil to *make* some things that are his or her own work. This should be considered when choosing crafts. To gain a sense of achievement, each pupil should complete some pieces of work herself from beginning to end - with the teacher's help to start if needed, but finally learning to do the whole work alone. (The sense of *personal achievement* is lost when work is passed from one pupil to another). From time to time pupils may take work home and parents should be shown any good work that their child has done.

Two important reasons for craft work:-

1) For the pupil to succeed in making things;
2) To learn to use tools that will be useful later (e.g. saw, hammer, needles etc.)

Some suggestions for craft work:-

Plaster of Paris work; candle making; simple woodwork; woven table mats; paperbag and cardboard box making; embroidery, knitting, beadwork.

14.7 NOTES ON RELIGIOUS EDUCATION

There are two parts to any religion, the outward and the inward. The teacher should try to make sure that Religious Education includes both the outward and the inward parts.

* The outward part. First is the outward (public) aspect of religion:- taking part in public prayers or other religious ceremonies, going to the special building for some of these, knowing the correct positions and words for prayers, reciting creeds, listening to readings from a holy book, learning some parts of the holy book, knowing religious duties, keeping feasts and fasts, taking the correct part in any rituals, treating with reverence any shrines, special places or objects or holy people.

The handicapped person should learn as far as possible to take up the normal religious duties of a person within his or her community. This will help very much in making him acceptable as a full member of the community.

Many children will be taught these things naturally within their families, or may be sent with their brothers and sisters to religious instruction classes after school hours.

* The inward part.. There is an inward part of each religion, a true, inner meaning. The outward parts of a religion are intended to help believers / followers to *understand the inward part* of their religion. Many of the outward religious acts and forms are symbols of the inner meaning.

The inward part normally includes:

- a realisation of the greatness and goodness of God, of Truth, of Love, of Goodness.
- a sense of awe and wonder; of reverence and submission.
- a wish to do right rather than wrong; to choose to be good rather than bad.
- Trust in the mercy of God, and protection from evil.

This is harder to convey through lessons at school, but the teacher must try to communicate it to the children through his or her relationships and way of living.

If too much emphasis is given to the outward part of religion, without relating it to the inner meaning, the child with mental handicap may think of the prayers and other religious acts as though they were a sort of test. She may worry that she might be punished if she makes any mistakes.

Understanding of religious truth does not, however, seem to be reached through intelligence alone. Sometimes people with mental handicap seem to reach a greater understanding than some people of normal intelligence.

If religious education is given at school, teachers must take care not to teach pupils any sectarian beliefs, and be sure that no offence is given to any family. No pupil with mental handicap should be given religious teaching that is against the beliefs and practices of his own family. Also, the school should not ask any teacher to give religious teaching that is different from her own beliefs.

14.8 GARDENING

Gardening is a useful and enjoyable activity for mentally retarded pupils. It is good to have a piece of ground in which the pupils can grow flowers and vegetables. It is also good to have one or two pots or trays in the classroom where pupils can watch the plants growing from seeds they have planted.

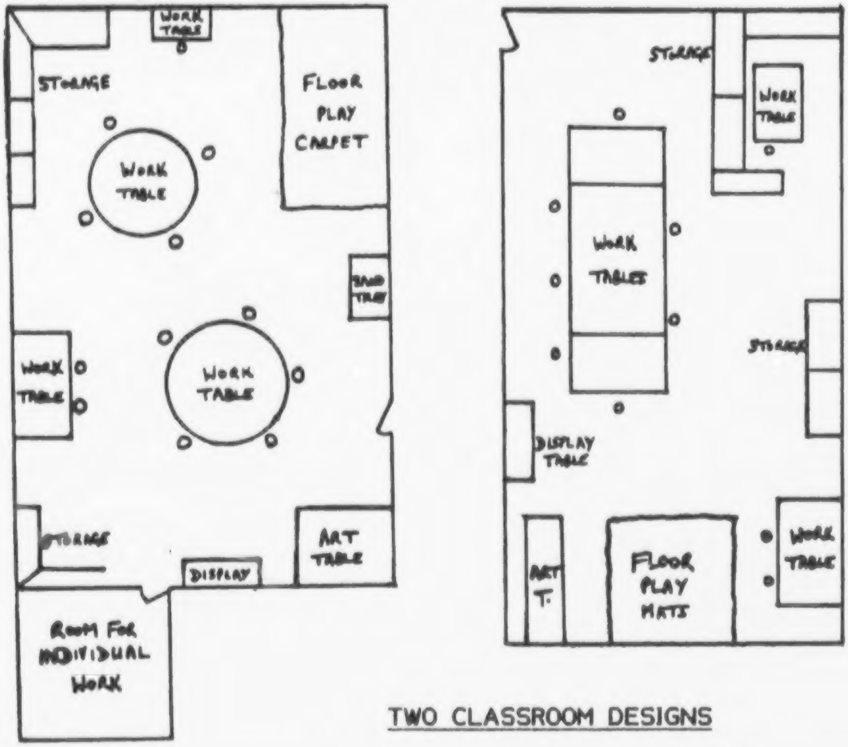
Older pupils can enjoy digging the ground. All pupils can plant seeds and water them. The children will daily look at their plants to see how they are growing and will enjoy weeding and other tasks.

14.9 CLASSROOM & PLAYGROUND LAY-OUT

* Classroom It is easier to work at one or two large tables than for pupils to have individual desks. There should be one or two smaller tables at the side of the room, for pupils who are doing more advanced work than the others, plus space for work on the floor. The tables can be moved away during drama and physical exercises. Some teachers prefer to have a permanent Art Table where one or two pupils can work at any time. There may also be a display table where collections are displayed for a few days e.g. a 'Colour Table' where everything is of one colour, which is changed every week; or collections of things found on an outing - stones, leaves, feathers etc.

If only small desks are available in the classroom, the teacher should try out different ways of arranging them (e.g. in a circle with all pupils facing the centre; or placed together in a block).

If a smaller room leads off the main classroom it may be used for individual teaching and also for 'time out' (See Section 15.3).


WORK TABLE
STORAGE
FLOOR PLAY CARPET
WORK TABLE
SAND TRAY
WORK TABLE
WORK TABLE
STORAGE
DISPLAY
ART TABLE
ROOM FOR INDIVIDUAL WORK
STORAGE
WORK TABLE
WORK TABLES
STORAGE
DISPLAY TABLE
ART T.
FLOOR PLAY MATS
WORK TABLE

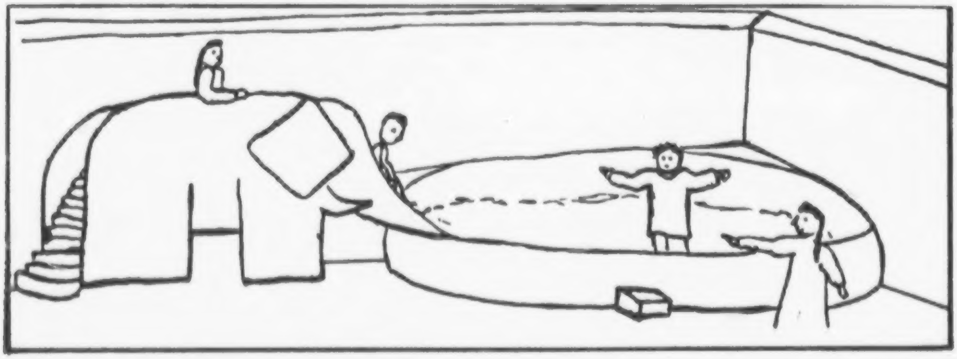
TWO CLASSROOM DESIGNS

If there is not a smaller room available, then a corner of the classroom may be divided off by cupboards or screens for individual work or for children who are easily distracted. Even if this is not possible, the teacher may himself sit in a corner (facing outwards, to keep an eye on the rest of the class) doing individual work with one or two pupils who sit facing towards the teacher and so are less distracted by the other pupils.

A sand tray - or bath full of sand - may be kept in the classroom. Younger pupils benefit from handling sand and digging in it. Sections 11.7 and 11.11 suggest that sand and water be available for measuring and filling and emptying different shape and size containers - so older pupils should also have sand available.

If the class has no blind pupils, furniture may be moved about at any time. Blind pupils need to know their way around a room, to avoid bumping into things. They should always be told if a piece of furniture has been moved. Some emotionally disturbed children may get upset if furniture is moved. The teacher must *weigh up the benefits and disadvantages* of doing so. Classroom work should not be unduly limited by the needs of one or two pupils, but the feelings of the individual must also be considered and respected.

* Playground The playground should have plenty of room for pupils to run about and play sport (cricket, football etc). Swings are useful - hyperactive children enjoy a swing and are often calmer after a few minutes swinging. Swings with rubber edges are safer.



Climbing apparatus and slides provide enjoyment and increase pupils' physical coordination in climbing. If a paddling pool is available, children will enjoy it very much, but *great care must be taken to avoid accidents*. Some space in the playground should be given for growing flowers or vegetables or both. Many good ideas for low-cost 'adventure playground' equipment are given in Disabled Village Children (see Appendix VII).

15.0 MALADJUSTMENT & PROBLEM BEHAVIOUR (I)

15.1 A FIXED PATTERN

The *maladjusted* child has emotional problems, and finds it hard to form normal relationships with people. Her behaviour may be hard to manage and she is unlikely to make full use of her abilities because of the emotional problems. Some maladjusted children become aggressive, naughty or demanding; others become very quiet and withdrawn. Normal children may behave like this from time to time, but in a maladjusted child it has become *a fixed pattern*.

Maladjustment is the *condition or disability* of the child. The child's *behaviour* is *what the child does* - and if this is socially unacceptable, then it is called *problem behaviour*.

Not all children with problem behaviour are maladjusted. Consider the following description of a child's behaviour:-

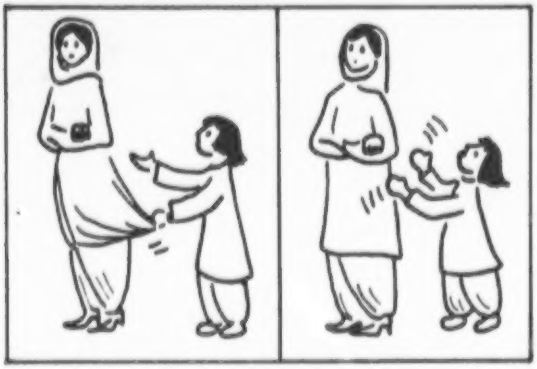
> *"Very active and restless. Throws violent temper tantrums when he does not get his own way or cannot communicate what he wants. He cannot easily be distracted when having a tantrum. He constantly demands attention from adults. Will not share with another child."*

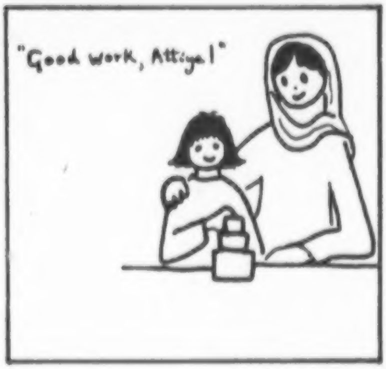
Such behaviour certainly causes problems - but according to Western studies this behaviour is normal in $2^{1}/_{2}$ year old children. Normally, children will learn to adjust their own behaviour until it is acceptable to others, whereas the maladjusted child needs a lot of help to do this.

15.2 PROBLEM BEHAVIOUR

Many teachers think that they have pupils in their class who are maladjusted, when in fact those pupils are behaving in a way that is typical of their stage of emotional development. But it does not mean that we should just accept this unwanted behaviour. As already discussed (Chapter 4), whatever a child does habitually, she has learnt. The normal $2^{1}/_{2}$ year old 'tries out' behaviour as described above. If she finds the results are satisfying, she repeats it. But if she finds it unrewarding, after a few tries she stops.

When does a child find problem behaviour satisfying ? It is satisfying and rewarding when *something she likes follows her actions*. When a child is playing quietly, perhaps nobody pays him any attention. But if he starts screaming or hits his sister, people come to speak to him - which he enjoys, so he screams again next time he wants attention. (Only a few severely maladjusted children do not want to receive attention from adults.) If a child screams when the family has guests, and her mother gives her sweets to keep her quiet, she learns that by screaming in front of visitors she gets sweets.




"Good work, Attiya!"

If teachers want to reduce problem behaviour, they should take care that such behaviour *brings no reward.* To ignore the unwanted behaviour may be enough for it to die out, but then the pupil must get plenty of attention and praise when she behaves well. If she sits quietly working or playing, the teacher should sit beside her and praise her for it, or at least give a verbal reward ("Doing good work, Jani !") across the room. If a pupil has only recently begun to behave in an unwanted way, lack of reward (e.g. being ignored) may cause her to stop quite soon. But if she has already for some time found this behaviour rewarding, it will take longer to stop.

When the teacher ignores problem behaviour, it often *gets worse before it gets better* ! The pupil feels unconsciously that her problem behaviour did succeed before, so to do it more often and more 'badly' may succeed again. *Do not despair!* Afer two or three weeks, the behaviour will improve. Sometimes teachers and parents (especially of teenage boys) say they are forced to give in to the child if he has a temper tantrum. But this only rewards the problem behaviour. The choice is simple and clear: either put up with outbursts of rage for a few weeks *without giving in; or allow the child to control everyone by his problem behaviour, perhaps for many years.*

15.3 TIME OUT

Sometimes a pupil's unwanted behaviour cannot be ignored, if it is dangerous or frightening to himself or others. Either the danger or the pupil must be removed - but without giving any reward or satisfaction. If another child has been hit or interfered with, it may be possible to remove that pupil from the interference. If the pupil throws things during temper tantrums, remove any objects that might be thrown. Sometimes it is best to take the pupil who is misbehaving out of the room for a short time. The purpose of this is not punishment, but to *stop him from getting any reward or satisfaction* from his misbehaviour. The pupil must get no 'rewarding' attention while being taken out. The teacher should speak only one word 'NO' and then lead him out without looking at him.

This *'Time Out'* should be done in a place where pupils can safely be left alone, with *nothing they will enjoy doing*. The ideal place for Time Out would be a small room with no furniture, well lit by high up windows which the pupil could neither break nor see out of. It is no use to send him to the playground where he may play, or to an empty classroom where he can look at books or find something to make a mess of.

On the other hand the pupil should not be put anywhere dark, unpleasant or frightening. Time Out is not punishment (though it may be *unwanted* by the child). The idea is that the pupil should find that his previous behaviour gets no reward: in fact it removes him from anything interesting or rewarding.

The pupil should not remain in the Time Out place for more than THREE MINUTES. If she is still having a tantrum, and is likely to repeat the unwanted behaviour, she should remain until she is quiet for one full minute. Then she should return to the classroom and continue her work.

* Head-banging. If a pupil has the habit of banging his head on the floor, wall or furniture, to express anger or frustration, the teacher may find it easier to ignore this behaviour if the pupil is protected by wearing a soft helmet like that for epileptic children. (See p.14)

15.4 CAUSES OF PROBLEM BEHAVIOUR

The most common reason for problem behaviour is that the pupil has found that it is a good way to get attention.

Sometimes the reward a pupil gains for unwanted behaviour may be something other than attention. For example, a pupil may throw a piece of work on the floor, to avoid doing it. If the teacher ignores this, the pupil gets what she wants. So the teacher should make sure that the pupil picks up the work and gets on with it. (When the pupil does so, the teacher should make sure that the work is at the right level for the child. She should try to think how it can be made more interesting, to prevent further misbehaviour).

The teacher should bear in mind that unwanted behaviour might be the child's response to a painful situation which she does not understand, e.g. if another pupil is secretly pinching her or if she has a physical problem such as toothache or severe indigestion that gives pain regularly after taking her midday snack. This of course requires the teacher's attention. (It is also to be hoped that the pupil will learn some other way to communicate her pain).

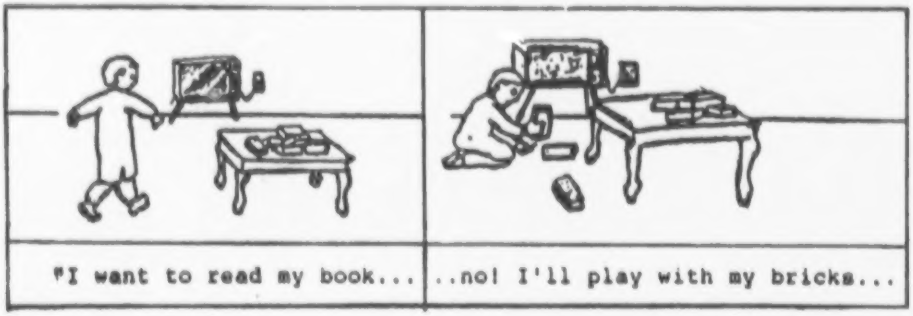
To discover what is rewarding or reinforcing a pupil's problem behaviour and in which situations it is likely to occur, a record should be kept of the following sort:-

Date & Time	Type of Problem Behaviour	What happened just before	What happened just after

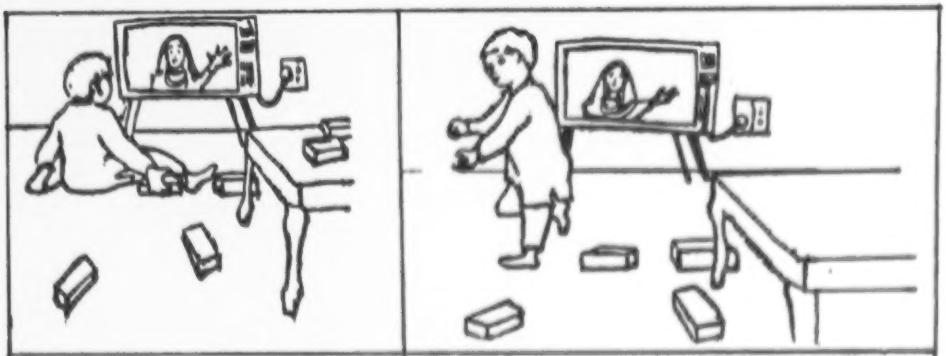
'What happened just after' will usually show the reward or reinforcer of the problem behaviour. 'What happened just before' will show the situation likely to result in the behaviour. It may be possible to avoid that situation, or to be ready to deal quickly with problem behaviour at that time, or to find some way of enabling the child to cope with the situation without behaving in an unwanted way.

15.5 HYPER-ACTIVITY

Some pupils find it very hard to concentrate on any piece of work, or even to be seated, for more than a few seconds. Hyperactivity may also occur in children of normal intelligence and they can sometimes be helped with medicines; but medicines are usually not helpful when hyperactivity occurs in mentally retarded children.



"I want to read my book... ..no! I'll play with my bricks...



..no! I'd rather watch T.V. | ..no! I'll go and run about outside"

Hyperactive pupils find it easier to concentrate if there are no distractions. They should work at their own table, placed where they are not able to watch what other pupils are doing. If possible, there should be a small room with no distracting things in it, where the teacher can take the pupil for individual teaching sessions.

In working with a hyperactive pupil, it is very useful to keep records of the following sort:

Date & Time	What she did	How long she sat	Reward used

* *Example:* Amir never sits down for more than 10 seconds. The teacher should first aim to get him to sit for 20, then 30, then 45 seconds. When Amir can do that, try for 1 minute, 1 1/2 minutes etc., until he can sit and work for 10 minutes. Some reward should be given when the child sits for the required time - give the reward when the time is up, even if the child is still working: don't wait till the child stops or you may be rewarding her for stopping. The child should be given plenty of encouragement to do definite tasks.

Hyperactive children usually slow down at adolescence. But do not 'wait until he grows out of it' - he will lose years of learning useful things and may instead learn a lot of problem behaviour. If the hyperactive child is treated with patience and affection and is helped to learn the right things, he or she will become a pleasant adult. But if they are physically restrained and often punished during their childhood they may be aggressive and bad tempered later on, even if no longer hyperactive.

There is evidence that some hyperactive children suffer from food allergies (bad reactions). If such children are given a diet completely free of the food to which they are allergic, their behaviour becomes normal. The most common allergies are to artificial food colourings (found in commercially produced drinks, fruit squashes, jams, biscuits, cakes, sweets, sauces, canned foods etc.) More rarely, children may have allergies to natural foods such as cow's milk, eggs or meat.

15.6 NOTES ON PUNISHMENTS

Punishment is usually not an effective way to deal with persistent problem behaviour. In the short term it may relieve the teacher's feelings of annoyance, but in the long term it can make the problem worse. If a pupil is often punished, the punishment tends to become less effective as he gets used to it. Some children are hit by their parents so often that they connect being hit with receiving attention. The attention is rewarding enough to compensate for the pain of being beaten, so they continue to behave in a way that brings beatings.

On the other hand, the pupil who is emotionally healthy, i.e. not maladjusted, will not be harmed by an occasional smack from her family when she is naughty. It is a quick and simple way of showing disapproval. The teacher should *not get the habit of smacking* children. If children are smacked, it should be only using the hands (never a stick or belt), once or twice, only on their hands or buttocks (backside). Smacks on the face or head must NEVER be given: they may cause serious harm to the brain, eye or ears. There is also a risk of pupils imitating such actions on others.

15.7 USE OF MEDICINES

Problem behaviour is something that a child has *learnt*. If we learn our multiplication tables wrongly, the only solution is to work hard to learn them correctly. In the same way, if a child has learnt to behave in a way that is not unacceptabe, he must learn the correct way to behave. Medicines cannot teach a child to behave correctly. But they can sometimes affect a child's feelings, and so increase his willingness to learn.

Medicines (prescribed by a qualified doctor) may reduce a child's worry and anxiety: if his problem behaviour is partly a result of anxiety, then his outbursts may be less frequent after taking medicines. With less problem behaviour, there will be less stress on teacher and family, so they can more easily respond in a positive way. Medicines are not an alternative to the methods outlined above, but sometimes they make it easier to use these methods.

On the other hand, some children learn less easily if they are taking medicines. It may then be harder for the child to learn to behave acceptably. In that case she would be better off without medicines. When medicines have been prescribed for a pupil, the teacher should take note of any side-effects. If the pupil is sleepy or seems very uncomfortable, make sure the family knows of it and that the doctor is informed, so that changes can be made. Many children are given higher doses of medicines than they need, which may harm them.

15.8 THE MALADJUSTED CHILD

The maladjusted child has emotional problems and finds it hard to form relationships. Many mentally retarded children do not have normal relationships within their family. A mother may spend her day trying to do her work while always watching out for what her retarded child might do. Of course, the mother wants to stop the child from doing damage or coming to any harm, but she cannot spend the whole day playing with the child: the result is that her general response and attitude may be anxious and negative.

The mother may tire herself out telling the child to "Stop doing that", "Sit still", "Come back" etc. Then she does not have any time or energy left to give the child the affection and encouragement needed for healthy development, or even to think of praising and rewarding the child for doing the right things. Instead, the child learns that he is the cause of his mother's anxiety. Everything he does seems to be 'wrong'.

- A Fresh Start. When such a child starts in a special school she finds herself in a new situation with new people. She has a chance to learn to relate in a new and friendlier way to teachers and classmates. The work they are given is within their ability to do, so they earn praise, affection and reward. In this situation, many children succeed in overcoming their emotional problems. The mothers also have time, while the child is at school, to get their household work done without trouble. Then when the child gets home, the family has more attention to give.

The teacher with maladjusted pupils in his class should make sure there is a regular routine, so that the pupil knows what to expect. But this routine should not be rigid. The pupil who is maladjusted needs most of all a relaxed, happy place where she is encouraged to play and interact with her classmates.

Many children who are mildly retarded or have difficulties in learning, such as may result from perceptual problems, feel themselves to be a failure because of their lack of success in school. A pupil whose work is seldom rewarded with success will become discouraged. She may think of herself as a failure and start to misbehave. Her family and teachers should try to understand the reasons for misbehaviour. She should be given work to do that is within her ability - so that she will succeed and will earn praise and encouragement.

When a child often hears his parents or teachers say that he is *"A bad boy"*, *"Badly behaved"*, *"Stupid"*, or any other criticism, he may come to believe that "bad" is his real nature, which he cannot change. (Of course, one can say that something he has done was "A bad thing to do"). Children who are often in trouble, and who seldom succeed, need very much to hear adults saying some good things about them - *"She was a good girl today"*, *"He played nicely with some children in the park"*, or any other appropriate praise. Also, the child's family should not be criticised in his hearing.

* Family Problems. Children's emotional progress can be affected by a parent's ill health, quarrels between parents and grandparents or other relatives sharing the home, or other worries which prevent the parents from treating their children in a kind and positive way. Poverty and poor housing can also cause many problems.

There are some cases where a child has been badly abused at home. For example: being often beaten or interfered with sexually by adults who are themselves mentally unstable. The child's ability to form normal loving relationships can be seriously damaged by this sort of abuse.

* Severe Maladjustment. The severely maladjusted pupil needs more specific help, over a longer period of time, but the same principles apply as given above. The teacher should aim to develop a relationship of trust and friendliness with the child - this may take much longer than with other pupils. Behaviour problems may be dealt with even before this friendship has developed. Some pupils have several different behaviour problems, in which case it is best to start work on one or two at a time. If a pupil kicks, spits and swears, it may be best to begin by stopping the kicking, then the spitting and later work on the bad language. In such cases the teacher should always keep a written record of what she is doing and what her aims are.

The very shy and withdrawn pupil is often harder to work with than the aggressive, demanding child. The withdrawn pupil may not seem to respond to the teacher's praises - other rewards must be found, e.g. playing a piece of music, using a favorite toy, etc. The teacher must be very patient in trying to build up a friendship with the pupil. Music sessions and individual movement sessions may help the child to relax and relate to others. The teacher may sit on the floor with the pupil sat immediately in front, and rock the child from side to side until he relaxes. Some children enjoy being picked up and swung around, but others are too nervous. Some anxieties may be reduced by use of medicines.

* Pet therapy ! Some children are helped by contact with pet animals - they can relate to the animal, which may then help them learn to relate to people. (See p.168-9, 173). For some children, big animals are best. Others may be frightened by big animals and will prefer a rabbit. If someone near the school keeps a horse or donkey, the pupil may be taken to see it regularly, touching and talking to it. After a few visits, if the child is not frightened, a ride may be possible.

A pet dog may be brought to school regularly or a goat or rabbit could be kept as a school pet. Never force a child to have contact with an animal if she is afraid. When she sees her teacher or classmates talking quietly to it, and the animal responding, she may want to join in (sometimes after a few minutes, sometimes after months). Care must be taken not to allow pupils to be cruel to an animal kept in school. A pet must be well fed, with its own place where it can hide from pupils when necessary. Proper arrangements must be made for school holidays.

15.9 WORKING TOGETHER

In all cases of maladjustment and problem behaviour, it is very important for all those involved with the child to work together toward the same goals. The teacher may at first need to work alone, reducing problem behaviour in school, before the family is motivated enough to try a similar program at home. Sometimes, unfortunately, families find it hard to change their ways of dealing with their child. If the family continues physical abuse of the child or does not give her any love or affection, it will be hard for her to overcome her problems.

15.10 NON-ACCIDENTAL INJURIES

In recent years, nurses and doctors have come to understand that some of the injuries to children such as burns, broken bones, severe bruising, which are reported as "accidents", are in fact the result of beatings and abuse by adults. The problem of 'non-accidental injuries' has been found in all countries where studies have been made. It happens in wealthy and respectable families as well as in poor families.

Non-accidental injuries are *more likely* to happen to mentally handicapped and maladjusted children for several reasons:

1) The child's behaviour may provoke a violent reaction from adults within the family or in the neighbourhood.
2) The child may be unable to tell what has happened, or his story may not be believed.
3) It is easy for adults to claim that a mentally retarded child 'had an accident and got hurt' - other people will be ready to believe this.

It sometimes happens that a child is sexually abused by an adult or older child. There may be no physical injury, but the teacher may notice a change in the child's behaviour, such as when a child seems upset without any clear reason or becomes silent and withdrawn or tearful.

If a teacher forms the opinion that a pupil is being seriously abused at home (or anywhere else) she should first discuss the matter with the school management and ask for the child to be medically examined. Notes should be made of any injuries over a period of time. This must be done:

a) in defence of the child;
b) in defence of the school, as the pupil's family may try to claim that injuries happened at school;
c) to try to stop worse injuries from happening later, either to this child or to a younger brother or sister.

16.0 MALADJUSTMENT & PROBLEM BEHAVIOUR (II)

16.1 SOME CHILDREN WITH PROBLEMS

It is not easy to generalise about maladjusted children - each child's problems are different from another's. The following short case histories show various aspects of maladjustment and how it was handled in practice. They are based on classroom notes made by Mr. Oliver C. Caleb and other teachers at the Mental Health Centre, Peshawar.

Some of the children showed marked improvement. For others, the best efforts of the teachers did not succeed in overcoming the problems. Success is never certain - but on the other hand, there is always some new idea or approach that may be tried, even with the most difficult child.

(a) S.A. aged 9

When S.A. began attending school (aged 8) he spent his time hitting, kicking and pinching anyone within reach, or throwing any objects that came to hand. His family gave him attention whenever he acted violently, but at other times he was ignored. So they were reinforcing unwanted behaviour while disregarding good behaviour. S.A. was cared for at home by a cousin little bigger than himself, whose only means of control was to burn S.A. with matches if he came within reach.

At first we could not work with S.A. in a classroom because the other pupils risked injury. We tried to find some positive activity for which S.A. could be rewarded, while giving no response to his physical attacks. (The teacher suffered scratches, bruises and once was concussed). Since S.A. enjoyed throwing things, the teacher spent 20 minutes every morning throwing a ball to him along a corridor. S.A. would catch the ball and throw it back. At 20 yards distance he felt no need to kick or strike out, so he was able to do something he liked (throwing the ball) while also cooperating with his teacher and gaining praise. Over several weeks the distance reduced little by little, until S.A. would stand near the teacher without hitting her, and would throw the ball to her hands, not at her head.

We could then take him into the classroom for a few minutes at a time. All hard objects were first put away. After a few months, his aggressive behaviour grew less in school, but it did not stop completely; it was still sometimes brought on by the response of other pupils and by a nervous trainee teacher. Slowly, S.A. began to relate well to his teacher, to go for walks and sometimes to obey instructions. His cousin was replaced by an older woman 'ayah', who wanted to learn how to work with S.A. at home.

S.A. began to talk, which made it easier for him to communicate what he wanted and to get other people's attention without violent acts.

When the teacher was sure that her relationship with him was well established, S.A. was on two occasions given a smack, once for hitting his teacher and once for hitting another child. After the second time, he never again used violent behaviour in school. Punishment had not been given until it was clear that approval by teacher or ayah had become the most important reinforcer of good behaviour for S.A.

As S.A. made progress at school, we told the family of each development. When he stopped acting violently, we could work on other areas of behaviour. For example, S.A. refused to sit down to eat. He would only eat certain foods and was inclined to throw his food. At school, once he had stopped behaving violently and had joined one of the classes, he was expected to sit with the other children, but he was not forced to eat what he did not like. At home the family began to require the same behaviour, and eventually he started to eat other foods. S.A. learnt to take messages and run errands for his family, and to take part in family activities.

(After 2 more years, S.A.'s family returned to their home in the mountains, taking him with them, now as a fully integrated member of their family. They visit Peshawar sometimes, and it is a great pleasure to see S.A. with his parents, brothers and sisters, talking and playing happily.)

(b) P.U. aged 14 (at school since age 9)

P.U. used to get upset and aggressive if asked to sit and work. His speech was like that of a 2 year old. A year ago he was keen to ride a bicycle. This was taught to him and P.U. was very happy. A bicycle trip became the main reinforcer for him to work. Slowly he began making progress and enjoying praise and reward for doing well. He stopped hitting other children and became friendly with them.

Then P.U.'s behaviour suddenly became worse. He began stealing bicycles and taking them home, showed disturbed behavour at school and ran away often. His parents would find him at some distant place in a very miserable condition. We found out that P.U.'s parents were on bad terms with one another. There was much conflict among family members. Anyone in the family who was upset used to hit P.U. without reason: the mother, the father, even the uncle and grandmother. In his family, P.U. was used like a weapon. The family also moved house three times in 6 months. P.U.'s behaviour grew worse day by day. He used to steal 2 or 3 bicycles daily and once he drove away a bus. His family and the local police grew tired of him. The father said he would put P.U. in the jail mental hospital.

Medication was prescribed by a psychiatrist, which made P.U. sleepy and limited his ability to behave badly. After a month the medication was decreased and teachers visited the family several times. We explained that P.U.'s behaviour was partly due to their family problems, which they should try to resolve. P.U. began to come to school again regularly but had forgotten everything he learnt previously. He now shows no interest in anything, and his condition is just like when he first came to our centre. His violent and aggressive behaviour has returned. We have to make a completely fresh start with him. The boy has nobody else to turn to.

(2 years later: after a beating from his father, P.U. ran away from home. He was picked up by the police for stealing a piece of fruit. After two days in jail, P.U. was sent to the jail mental hospital, among men detained as 'criminally insane'. We arranged for his release, but then P.U.'s father said he wanted him to stay in jail. We could not solve this problem).

(c) K.R. Aged 11 (at special school from age 5)

K.R. was a very disturbing, restless and hyperactive boy. At first he did no useful work, apart from a small jigsaw puzzle. The rest of the day he used to run here and there, making noises, banging any object that came into his hands. He broke most of the equipment in the classroom, also doors, cupboards amd taps. He wanted to do everything at once. He could not concentrate for more than a few seconds.

When he sat down to make his routine jigsaw puzzle of five pieces, his teacher praised and rewarded him. But when he misbehaved he was given no attention. Gradually K.R.'s interest in jigsaw puzzles grew and he began to do larger puzzles. He could then sit for 5 minutes daily and he was rewarded for completing puzzles. The teacher began to give K.R. some heavy manual jobs like digging the garden, which he enjoyed very much. When he started doing this work daily, his over-active behaviour slowly reduced. He became very friendly and affectionate towards his teacher, who could now reason with him if he misbehaved. Sometimes he would hit another child; then he was made to sit in the corner for three or four minutes. If he stole other children's food or misbehaved at table, he was deprived of his morning snack.

One year later, K.R. was playing with toys constructively. He now likes to make houses and cars of Lego bricks, he rides a bicycle and plays football, colours and paints etc. He takes part with initiative in all sorts of indoor and outdoor activities. He is careful with toys and replaces them in the cupboard after work. He still likes to make noise and becomes over-excited, but only in the playground, not the classroom.

(5 years later: K.R. is now a big, strong young man of 16, but quiet and very gentle. He is kind to other children. Usually he is happy, and he often sings while he works. At school camp in the hills, he keeps himself busy, carrying water, getting firewood and other useful tasks. In the evenings after school, and during holidays, K.R. helps in a neighbour's electric fan repair shop, taking messages, fetching tools etc. Soon he will leave school, and his father is concerned that K.R. learns to do the best possible kind of work when he leaves.)

(d) A.B. Aged 16

A.B. has attended school for two years, but her prospects are poor because of the family's lack of interest. She has violent outbursts of temper when asked to do anything against her wishes or is not given as much attention as she would like. Other pupils are in danger of injury. In particular, smaller children are likely to be hurt.

Sometimes A.B. behaves strangely, laughing wildly, then maybe scratching another child down his face, or tearing her own clothes to pieces and running around unclothed. A.B. is moderately retarded. She has enough spoken language to tell her needs and hold a simple conversation. She can attend to her personal needs and has learnt to do simple household tasks e.g. cleaning, washing dishes and helping with cooking.

A.B.'s family do not expect her to make progress. Teachers have tried to help the family to manage her more sensibly, but with little result. When she causes trouble at home, A.B. is often chained up and sometimes beaten. Her family is careless about giving her prescribed medicines. When teachers gave her the medicines at school, her behaviour steadily improved. When her family was asked to give medicines at home, her behaviour got worse.

(A few months later, it became impossible for A.B. to stay in a class with other girls, whom she often attacked. We tried moving her to a boys' class as an experiment. She stopped being violent - she never hit or scratched a boy. She made one very painful assault on a male teacher, who hit her hard in return - she did not try it again. But she began taking off her clothes, to gain attentión. In the local situation, this activity of a 16 year old girl could neither be ignored nor tolerated. A.B.'s parents were still unwilling to give her medicines, and instead kept her chained up most of the time at home. With great reluctance, we excluded her from school.)

(e) B.S. Aged 16 (at school since age 14)

B.S. is blind and mentally retarded. When he first came to school, he was uncooperative and hyperactive. All he did was to bang two wooden blocks or sticks in front of his eyes and run from one corner of the room to another, weeping, shouting and hitting other people. He used to talk to himself much of the time. Other pupils were often upset and afraid of him.

If he could not find his wooden blocks he got upset. The teacher would give him two blocks and try to make him sit for a few seconds. Then, if he screamed and showed aggressive behaviour he would be ignored. But if he sat down quietly the teacher sat with him, giving him the blocks and talking to him. After 2 weeks, a relationship was formed. His difficult behaviour reduced and slowly he started responding to communication. If he wanted to drink water, he asked the teacher for it. At first, water was brought for him; then he was shown the tap and the place for cups. Then he stopped asking the teacher, but asked other pupils who would take him to the kitchen and give him a drink. Eventually he stopped asking and learnt to find it himself.

It took a few weeks to teach him to wash and take care of himself in the toilet. When the teacher-pupil relationship became stronger he started obeying instructions. The teacher tried to give him more attention and kept him occupied doing simple jobs. He was praised and rewarded for following instructions. He has been taken to the bazaar, park, etc., and to buy sweets at his own request. After 18 months, his aggressive behaviour has nearly stopped.

Now B.S. can sit with other children at the table to play with 'Lego' for about 20 minutes daily. He is friendly with some other boys. He likes to scribble with crayons and can cut paper with scissors. He sits and eats with other children without making a mess; he responds to communication, asks permission to get water or use the toilet, and follows simple instructions such as not leaving the classroom door open. Despite severely impaired vision, he recognises teachers and fellow pupils. He enjoys threading beads on a string. He only occasionally bangs sticks in front of his eyes. He has shown good progress. His family takes a keen interest.

(3 years later the time came for B.S. to leave school. He had continued to make progress. The teacher who did the initial work with him left, but by then B.S. could relate quite well to other teachers. He came on a school camp and fitted in well (but complained often that there was no ice-cream.) Because of his multiple handicap, there was unfortunately nowhere B.S. could go for further training on leaving school, and no work situation where he could be employed. So he stays home all day with his parents, who have retired).

(f) S.F.

S.F. started school at the age of 9 years. He spent his first 3 days lying under a table in the corner of the classroom, screaming. On the 4th day he stopped screaming and twice jumped out to grab something, and took it back with him under the table. It was 2 weeks before he was ready to join the other pupils sitting at table in a normal way.

We found out that S.F. was deaf. Nobody had communicated with him in any way that he could understand. He was unable to use a hearing aid, but when his teacher began to communicate with signs, S.F. soon responded. He began to use signs himself. He was no longer isolated in a world of his own. He continued for about a year to have occasional temper tantrums when he did not get his own way, but he made friends with other children, came on school camps etc. He began to learn to read, write and do arithmetic. We suggested to his parents that S.F. might go to a local school for deaf children, but they did not agree.

S's greatest love is cricket. His coordination was poor when he joined us, but he practised until he was a good bowler and batsman. The non-handicapped children of his neighbourhood recognised that he was the best cricketer amongst them, which made him very popular.

(g) M.N. aged 9 (at school since age 6)

When M.N. first came to school, he had many of the typical features of autism. He was a beautiful child, with fair, translucent skin and delicate features, but his face had strange expressions - usually very blank, but sometimes odd grimaces. His only communication was to scream if anything happened that he did not like. He would not make 'eye-contact' or look at another person's face. He did not play with toys and ignored his teachers as if they were not there. He did not cooperate in any way. Sometimes he would lie on his back for hours, kicking a cupboard or staring at the ceiling. Other times he twiddled a piece of string before his eyes for hours. He screamed if anyone tried to stop him doing these things. He did not try to feed himself and had no toilet training.

Change began one day when the Principal brought her large, friendly dog into the classroom. M.N. looked at the dog and went to stroke it. He was then allowed to see the dog daily; he would babble while stroking the dog's face, looking into its eyes, which he never did to any human person. M.N. began to show that he wanted to be taken to see where the dog lived. After a few weeks, he said the word "Kutta" (Dog). He was now improving in other ways too, twiddling string and kicking cupboards less often, sitting at the table near the other children. One day he said to his teacher "Pani lao" (Bring water). He drank it and gave back the cup with a smile.

More progress came when a young woman volunteer began to work in the class. She took a special interest in M.N. and he responded, coming of his own will to sit on her knee. Soon he would run smiling to hug her when she entered the room. He began to play constructively with blocks and do jigsaw puzzles when sitting with her. After a while he began to respond to the other teachers too, and would smile at them and sit on their laps. He still does not speak much. When speaking he uses short sentences rather than single words, and speaks quickly. It is hard to catch what he says. He feeds himself and uses the toilet when taken. He sits and plays near other children. He is loving towards his teachers, has no fear now of looking anyone in the eye. M.N. still has a lot to learn, but he is very different from 3 years ago.

(h) S.B. Aged 13 (at school since 6 years old)

When S.B. started school, she did not concentrate on any work. She threw all toys and equipment to the floor and ran about the room causing chaos. She would pull the hair of her teacher and of other children in the class. She did not speak, but screamed a lot. Mealtimes were difficult - if she sat near other children, she would eat their food. She had epilepsy, and was taking medicines but still having some fits.

S.B.'s teacher concentrated on trying to form a relationship with her. When other children went out to play, the teacher would sit and talk and play with S.B. She gave lots of affection. She would often break off from work with other pupils to spend a few minutes with S.B. Whenever S.B. came to the teacher, the teacher would give her attention. Slowly, S.B. began to communicate, taking the teacher's hand and leading her to show what she wanted, or just coming to smile at the teacher. She was very fond of a doll, and always held it in her hand. She was allowed to keep the doll with her.

The teacher found that if ever she told S.B. "Don't do such and such", S would immediately do it. The teacher thought that the reason might be that S.B. understood only the second part of the command, leaving out the "Don't". The teacher started just to say 'No', and found S.B. willing to obey. She started playing games with "Do" and "Don't" commands until S.B. could tell the difference.

A big change took place when we asked S.B.'s mother to get another doctor's views about her medicines. This doctor said that the medicines she was taking were not stopping her fits but were making her sleepy, so it was hard for her to learn. He prescribed different medicines. Now S.B. began to relate to one of the other girls in the class, sitting by her to do her work, so the teacher did not need always to be near her. S.B. would also sit alone to work, the teacher praising her every few minutes. She started to talk. She only had very occasional fits. After 2 years, S.B.'s behaviour became worse again. We asked her mother about the medicines, and found that she had recently changed them. We asked her to change back, and S.B.'s behaviour improved.

S.B. now talks sensibly, and is friendly. She still gets upset if other children in her class start screaming or rushing around - then she may herself start screaming or even pull someone's hair. But this rarely happens, because if some problem arises which the teacher thinks may upset S.B., she calls S.B. to her and keeps her near, and S.B. then shows no sign of getting upset.

(j) F.T. Aged 7

When F.T. started school, 6 months ago, he did nothing but cry and show by signs that he wanted to go home. He often tried to run away. He seemed to understand some of what we said to him - he usually replied by shaking his head vigorously, meaning "No!". F.T.'s brother reported that he was much the same at home too. He was not toilet trained, and was 'difficult' at mealtimes both at home and in school. He did seem to be happy for a few minutes during music sessions - he would shake his head or beat the table in time to music.

After a month he stopped crying. He started to examine toys with interest, doing tasks that were given him. He showed his wants and dislikes by signs. He obeyed any instructions, and showed an understanding of much that was said to him. He began to play cooperatively with other children, and was the first to call the teacher if any child had a problem. He behaved well at mealtimes, even helping to clear up afterwards. His parents wrote a letter, saying that they would never have believed that their child could change so much, so quickly.

After another month he started to talk. He called his teachers by name and began to say nursery rhymes. He became toilet trained, taking himself to the toilet when he needed to go. After 5 months in school his language ability is developing rapidly and he is a happy cheerful and cooperative child.

(k) E.H. Aged 6 (at school for 1½ years)

E.H. is more severely retarded than the other pupils described in this section. When he started school he was always on the move, tearing thing off the wall, throwing anything within reach, hitting, pulling hair or pushing over any other child within reach and giving a loud scream every few minutes. He made eye-contact only very briefly. At meals he threw on the ground his own food or anyone else's. Being physically quite small, he did not frighten the other pupils, but it was necessary for an adult to be near him at all times. He was given a lot of attention, holding and cuddling, to help him develop a relationship with his teacher.

Slowly he has begun to calm down. The teacher encouraged him to look at his hands and at anything he was holding, and to look at himself in a mirror. He now turns to look at his teacher when she calls his name and stops what he is doing when she says "No". He is beginning to play constructively. He builds a tower of bricks. He likes to sit still watching what is going on. He is no longer destructive, and some of the more able pupils play with him. E.H. is from a wealthy family. At home he was previously always with servants, but now he is allowed to come into the family living room, with his other brothers and sisters who sometimes play with him.

16.2 NOTES ON AUTISM

Autism is an unusual condition, where a child does not relate to other people and communicates very little. "Autistic" is a term that should be used with care. It does not apply where a child's odd behaviour may result from brain damage. It cannot be used where a child refuses to cooperate through fear of unfamiliar surroundings. Children of all levels of intelligence may be autistic: they may be normal, very clever, or mentally retarded.

The autistic child has many of the following features:-

1) Does not develop personal relationships. The baby does not respond to handling and cuddling. The older child typically avoids looking at another person's face, especially avoiding eye-contact. When an autistic child does hold on to another person, it is as if he were holding a piece of furniture, not a human being.

2) Does not seem to know that she has a personal identity or individual self. Autistic children often explore and handle their own bodies as if they were objects, even to the point of injuring themselves. When an autistic child can speak, she may not know the difference between "I", "You" and "She".

3) Obsessive attachment to certain objects. The child may want to hold one object all the time (e.g. a piece of cloth, a cup) and becomes very unhappy if it is taken from her.

4) Becomes very unhappy if the environment is changed in any way, e.g. if furniture is moved from its usual position or if a familiar object is missing. The child may be very upset if routines are not strictly kept. Rituals are often developed such as folding up clothes in a particular way, insisting on people sitting in particular places for eating, washing in a particular way. The child may refuse to eat unfamiliar food.

5) Shows unhappiness by violent temper outbursts or biting self or by ritual movements such as rocking to and fro, jumping up and down, running round the room on toes. Often, nobody can tell what has caused such unhappiness. Attempts to comfort the child may have no effect.

6) Abnormal perception. Autistic children often respond in strange ways. They may seem unable to hear loud sounds, but react to quiet sounds that other people can hardly hear. The child may like to handle and examine very small objects, such as pieces of dust, grains of sand, grass seeds. The child may seem not to feel something that would normally cause pain.

7) No language, or little language. The child who has some speech may repeat phrases heard long ago. The voice may lack expression or intonation. Personal pronouns, 'I' 'You' etc. may not be understood. The child usually does not use or understand gestures.

8) Strange positions or ways of moving may develop. The child may twiddle a piece of string or another object.

9) Does not play in an imaginative way. Toys are not used to represent objects in the normal way (e.g. dolls or cars may be used as building materials rather than as a 'baby' or as a car going along the road).

10) Although some autistic children are mentally retarded, others have 'islands' of normal or above normal ability, which may include a very good memory or the ability to calculate numbers quickly and correctly. Some, who do not speak, can express themselves in writing poetry, or have unusual ability in music or in drawing.

Although true autism is rare, many maladjusted childen have *some autistic features*. Autistic chidren do not respond normally to praise and affection, and it is often hard to find anything that can be given to such a child to reward her for acceptable behaviour.

The autistic child's big problem is in relating to others (and himself), so the teacher's main aim should be to develop the ability to relate. The teacher should be ready to have a lot of physical contact with the child, even if the child does not seem to want it. Physical activities may help, such as rocking the child while holding him on the teacher's lap, seated on the floor. Children with Down's syndrome are usually friendly, and may succeed in making a relationship with an autistic child when the teacher and others have given up. Some autistic children respond well to animals, and can start to learn to relate through being allowed a 'friendship' with an animal.

Some therapists claim great success for 'holding' therapies, gripping the child very closely in a loving embrace until he relaxes and responds by smiling or snuggling up. This may take several hours, and be emotionally and physically exhausting - the hold must be firm but loving even if the child struggles to get away. It is best if the mother tries this method first, which should result in the child learning to form his first close relationship. If the mother cannot or will not do it, a teacher may try. Whoever starts this method should be able to continue with the child for as long as necessary (perhaps several years), since it could hurt the child to lose the one person with whom she has learnt to relate closely.

If an autistic child has some special skills, he should be allowed to work on them in school, some of the time. The teacher may believe that learning to dress himself or to talk is more important than drawing or music, but the child sees his art or music as more important. The school day should allow time for both the pupil's and the teacher's priorities.

16.3 BROAD CATEGORIES OF ADJUSTMENT & BEHAVIOUR

Emotional Situation	Behaviour Pattern Observed	Teacher's Response
Well adjusted Stable, Good relationships	Normal/acceptable	A) Enjoy friendly relations. Reward good behaviour
Well adjusted Stable, Good Relationships	"Problem Behaviour" a) Normal for developmental stage. b) Outbreak of 'learnt' bad behaviour.	B) Maintain friendly relations. Ignore / Do not reward problem behaviour. Provide plenty of interesting work. Reward and encourage good behaviour. Avoid damage to persons and property. Keep written records.
Maladjusted, Unstable, Does not form good relationships.	Acceptable, OR Withdrawn and depressed.	C) Patiently try to win the child's confidence, build up relationship of trust and friendship. Study the home background. Has psychiatrist been visited ? Observe effects of any medicines. Keep written records. Check if any additional sensory impairment may be adding to the child's difficulties.
Maladjusted, Unstable Does not form good relationships. Autistic.	"Problem Behaviour" a) Normal for developmental stage. b) Outbreak of learnt bad behaviour. c) Set pattern that results from maladjustment and tends to reinforce bad relationships. Does not relate to self or other persons. Obsessive attachment to particular objects, rituals, environment. Violent inexplicable outbursts. Abnormal sensory perceptions and movements. Little or no language use.	D) Combination of the responses (B) and (C) above, that may require months of patient hard work in collaboration with child's family and with professional colleagues.

17.0 FAMILIES WITH HANDICAPPED CHILDREN

17.1 CHILDREN BELONG TO FAMILIES

A child with a handicap, like almost all children, is born into a family and remains a life-long member of that family. Teachers need to work together with families, to help their pupils learn and develop as fully as possible.

In order to work cooperatively with families, teachers must understand some of the problems that may be faced by families as a result of their child's handicap.

Parents may need help to accept and understand their child's disability and to realise that *they themselves* can help the child.

17.2 WORKING TOGETHER

Teachers should aim to work as partners with the parents: teachers and parents together trying to help the child to overcome his problems, and trying to get acceptance for the child from the wider family, neighbours and society in general. Many parents are interested to teach their children at home: teachers should give advice and encouragement and also listen to and learn from the parents' experience of teaching their child.

With some families and in some societies, an equal partnership between teachers and parents may be unusual or difficult. But it should still be the ideal towards which teachers work.

There should be plenty of communication between home and school, so that parents can understand what is being done at school. Parents should be welcome to visit the school. Teachers must visit pupils' homes, and written reports must go regularly from school to home. (If the parents are non-literate, they will ask another relative to read the report to them). The teacher should take every opportunity to tell parents what their child is learning, the teaching methods being used, and what is planned next. Information should be in a form that the parents can understand: using local languages in preference to English, and without professional jargon.

* Parents' wishes. The teacher should try to find out what the parents most want the child to learn, and explain the different stages needed on the way to learning more advanced skills. (The parents' wishes may not be totally realistic, at present, but the teacher should bear them in mind when deciding her priority teaching goals). The teacher should also encourage parents to involve their special child in family activities and to take her with them when they go out, in the same way as their normal children.

Teachers should try to remember that, in many ways, parents are 'experts' on their own child. They live with the child and know more than anyone else what she does at home. The teacher must be willing to learn from the parents about their child. Parents sometimes find very useful ways to teach their children - they can be encouraged to use their imagination for this purpose. From time to time a Workshop may be held for parents to learn and practice teaching methods. Such workshops should give parents time and opportunity to tell what they have done themselves and found successful.

To understand her pupils, and to work with their
parents, the teacher needs to know what are
the preoccupations and problems of the families.

17.3 EACH ONE IS DIFFERENT

Every child is unique - so is every family - and so are the problems they encounter. Children, home situation, attitude to disability, all differ from family to family. If a *first* child is handicapped, parents may be able to spend more time with her than they could with a later child; but their disappointment, and the pressure from in-laws, will be greater than if they already have several normal children. Children with disabilities are born to rich families and poor families, educated parents and non-literate parents.

The problems of caring for a *hyperactive* child are different from those of bringing up a child with severe physical and mental handicap. From the viewpoint of family harmony, a cheerful Down's syndrome (mongol) child has little in common with an aggressive, deaf child of normal appearance.

The teacher should remember that almost all parents *love* their child, however handicapped. Those who do not seem to love their child are usually in a state of stress and feel unable to cope with the problems of their child's disability. *With help they will again find their love for the child.*

17.4 THREE TYPES OF PROBLEM

a) Difficulty in understanding and *coming to terms* with the *fact* of having produced an 'abnormal' child.

b) Difficulty in *coping* with the *day-to-day behaviour* of the child.

c) *Worries* about the child's *future.*

a) Accepting the facts Parents learn in different ways and at different times the news that their child has a disability. For example, some features of Down's syndrome may be recognised at birth, so parents may learn while the baby is very young that he will be a special child - but they will usually not know what that means.

Other babies may be taken to the doctor when a few months old, suffering from a fever or other complaint, and the doctor may point out that the child is mentally retarded. Some parents gradually come to see that the child is developing more slowly than other children, or that she walks or talks later, cannot feed herself, does not play etc. They may look for help at once, or they may hope that the child will improve by herself. Mildly retarded children may seem normal until they go to school; then they fail to keep up with school work.

Often it is a *great shock* to parents to be told definitely that their child is mentally handicapped. All parents expect and plan for a normal child. Before the birth, not many think seriously of the risk that their child might not be normal.

Some parents, on being told that their child is mentally handicapped, feel that they *cannot love and care* for her. This feeling, which is a normal reaction to shock, usually passes after a few days or weeks. Families may then decide that they *do not believe* the person who has diagnosed mental handicap.

Families go from doctor to doctor, hoping to find one who can 'cure' their child. Doctors and other professionals often fail to explain clearly, in a way the parents can take in, *what mental retardation is*, and how the child can be helped. When parents realise that their child really is different, they may feel *grief and loss* as if a child had died. The baby for whom they had planned, whose future they had dreamed about, was not born; instead they have a different child, with a different future, which they did not expect and do not understand. On the other hand, it may come as *a relief to know definitely* what is wrong: "Now at last we know what the problem is."

Some families persist in refusing to believe that the child is mentally handicapped. In Pakistan it is common for educated parents with a mentally retarded child to say that he 'has a speech problem' even if, for example, at 6 years old he is not toilet trained and cannot feed himself, as well as not speaking. These parents will often refuse to send the child to a school for 'mental' or 'retarded' children.

"Difficulty with Learning". Such parents may more readily send their child, if told that the school helps children who have 'difficulty with learning' - this phrase is less worrying and avoids negative images of madness and uncontrolled behaviour. It may also link up with the parents' own observations of their child. Teachers should take care that the words they use to talk about the child's condition *(mentally handicapped or retarded, learning difficulties)* do not present a bad image to the minds of parents or the general public.

The more traditional sort of family expects a son to become just like his father as he grows up, and expects a daughter to marry into a family that keeps traditional customs. In such families, parents may find it very hard to see how the child can really be theirs, if he will not be able to follow his father's work when he grows up. They may insist on using a very negative label *(mad, crazy, idiot)* to refer to the disability. They should be persuaded to use other terms, and to see the problem in terms of learning difficulties.

Guilt Feelings. Many parents at some time feel guilt about their child's handicap. They wonder if the child is disabled because they did something wrong - either as a direct result or as a punishment from God for doing wrong. This attitude makes it harder for them to accept the child and to help her make progress. A mother may believe that it is a punishment for her own sin that her child cannot walk, use the toilet or feed herself. So as not to 'refuse her punishment', the mother may decide not to teach the child these skills. A father who thinks that his own sins have already caused harm, may not allow his child out of the house, to avoid the risk of any more harm or accident to the child.

These feelings are not easily overcome. They may be helped by discussing the causes of disabilities, and by meeting and talking with other parents whose children have disabilities.

Sometimes parents blame one another. Grandparents may blame their son-in-law or daughter-in-law. This results in useless family quarrels. If parents are not blood relations they may be blamed by in-laws for having 'bad-blood' - as noted in Chapter 2. Some parents try to keep their child away from family meetings and do not visit relatives, so that relatives may not find out about the child's disability. Fear of relatives 'finding out' adds to the parent's emotional problems.

A strong extended family sometimes gives support to the parents, but quite often they make it harder for the parents to come to terms with the child's disability. If a grandfather or senior uncle expects to take all decisions about the child, the teacher should see that this person is also well informed of what the school is doing.

"A Cure" Many parents retain the hope that somewhere there is a complete cure for their child. Some believe that 'abroad' there are medicines or operations to cure the child who is mentally retarded. It is hard to convince them that this is not so. Pictures of Western children and adults who are clearly mentally retarded may help. Other parents visit religious healers, shrines and acupuncturists in the hope of healing.

Parents may feel a great *loss of confidence* in themselves as a result of having produced a handicapped child - they have not succeeded in producing a normal healthy child - so they doubt their ability to do other things well. Parents, especially mothers, may get depressed as a result of these attitudes and the problems discussed in the next section. Teachers must be sensitive to their feelings when first getting to know them.

SOME WAYS TO HELP :

* Parents Meetings. Parents often think that mental retardation is very uncommon. They are surprised to know that other people have the same problems. It helps a lot to meet and talk with others who feel the same way, or have overcome their problems.

* Information. The teacher helps when she listens with *sympathy* and gives suitable information about mental retardation. Be *honest*, but allow the parents some *hope*. We offer *no cure* or guarantee, but with hard work *we do expect the child to make progress*. Sometimes it helps families if they visit a special school, seeing other mentally retarded children at work. They hear from doctors that their child cannot be cured, or cannot learn; but to see children with a similar handicap who are happy and learning, not miserable and helpless, gives parents more encouragement than anything they could be told.

- Public Education. Take every opportunity to inform and increase the understanding of the general public. Until their own handicapped child was born, parents were themselves the 'general public'.

- A Special Family. The thoughts of some Muslim tribes-people in North Africa are worth mentioning to parents. Their idea is as follows: God in his wisdom knows that a child with a disability needs extra love, care and attention. So God places such a child only in a family that can provide such care. The family thus chosen is greatly *honoured*, and must live up to its responsibilities.

b) Coping with Everyday Behaviour Most children with a disability cause much extra work for their mothers. The child may be unable to feed herself, use the toilet or move about; or maybe the mother has to keep watch so that he does not run out of the house, begin screaming, break something, eat something poisonous or burn himself. The problems vary from child to child, but extra work is usually needed. A family may have to move house because of their child - if they live by a busy road and are afraid of accidents; if they live up narrow stairs and the child needs to be carried; if the neighbours make difficulties for them.

Have a break ! Because of this extra work, many families at first think of a special school as a 'respite place' to which the child can go every day so that they (especially the mother) can have a break. It lets the mother do her housework without worrying about the child and always being disturbed by him. When a mother has an active mentally retarded child at home, she is always telling him to stop this, not to do that, or physically stopping him from doing things. She seldom has time to play with him in a positive way or to encourage him to do the right things.

Parents get frustrated because the child does not understand. Some may even beat the child. The child is seldom praised or rewarded for doing the right thing, and so does not get the chance to learn what would please her family. She becomes unhappy, unable to relate to others. If she is able to notice what other children do, she sees them doing things well and being praised. She feels herself a failure.

Parents need advice on how to cope with their child so that he will learn more acceptable ways of behaving and so be easier to manage. Many mothers, however, are worn out by looking after their other children as well as the 'special' child. They do not feel able to cope with any extra work. Teachers need to win the confidence of such parents. First teach the child in school, then show the parents how the child has made progress. When parents have seen for themselves how the child has improved, and what he has learnt, they will be more ready to cooperate in teaching the child at home.

A Question of Time. If a child cannot feed herself, the busy or tired mother may not feel able to cope with the mess that will be made while the child learns to do it. When dressing the child in the morning, the mother may also have other children to get ready for school - it is not easy then to teach the handicapped child to dress herself. The teacher at school can teach these tasks and *inform the parents* of every step of school progress, so that the pupil will be encouraged to do the same things at home.

Some mothers do not teach the child 'daily living skills' because they think that the right way to love the child is to do everything for him. Others fear that the family may think they are being unkind if they do not do everything for the child. If the child learns skills at school *and the parents are informed*, he can start to use them at home and the mother may be more willing to help teach him in the future.

Normal children learn so many everyday skills, and learn so quickly, that families often do not realise that the child gains each new skill by learning it. But once parents see that their mentally retarded child must learn these things, they will want to help her to do so. We must give parents the confidence and the knowledge that they can help their child to learn.

Proud of Her ! Parents of normal children feel themselves rewarded and encouraged by their child's achievements. They feel proud of things she does or says, and are pleased when she is praised by neighbours and relatives. Mentally retarded children usually achieve less and make slow progress, so their parents tend to lose this major pleasure of Teachers can help parents take encouragement from the modest progress their child makes, but should not expect all parents to be excited by very small amounts of progress which they may consider to be irrelevant to normal life.

Some parents are unwilling to take their mentally retarded child out. They do not take him to family functions, (weddings etc.)

because they are ashamed or because they believe that relatives and neighbours do not welcome the child in their home. They may also be afraid that the child may behave badly. Some do not take the child shopping for the same reason, or because people might mock him. Fear of taking the child out may cause parents themselves (especially the mothers) to stay home, becoming more and more isolated and lonely. If the pupil is taken on outings by his teacher with his class-fellows, or sometimes by himself, he can learn the normal ways to behave in public. The school can also arrange meetings for parents, where they are encouraged to bring their children. For some families, going to such a meeting may be the first time they have ever taken their mentally retarded son or daughter anywhere in front of strangers. Some families in Peshawar say that after they took their child to one such meeting, they got enough confidence to take the child with them on other outings and family occasions.

Sometimes parents complain that as their child grows older, behaviour at home is becoming more difficult. This is often a result of boredom at home and a need to be occupied with something interesting like other boys or girls of the same age. If necessary, suggest to parents some ways of keeping their son or daughter busy when at home in the evenings or during school holidays. This is also related to what the child will be doing when he or she is too old to attend school.

c) Worries About the Future What will he do when he gets older ? Will he be able to learn some technical trade ? Will she be able to get married ? What about any children he might have ? Families with mentally handicapped children often ask these questions, as the child grows older.

There are no standard answers to these questions. The answer depends on the individual child and family. Parents of older mentally retarded children are often very keen for their children to learn 'technical' skills. Many mentally retarded young persons can be taught simple handicraft skills from which they may make a contribution to family income. The financial reward may be small, but the handicapped person will have a useful job at home and so will not feel useless.

* Useful work. Some families can readily find useful work for a moderately retarded person, e.g. the son of a businessman may take phone messages and introduce visitors; a shopkeeper's son may run errands, reach down orders from shelves. Serving tea and food in a street cafe is another job for a less able person. Other families may find it hard to accept the realities of these jobs. If a family has a higher social status, they may not be willing for their mentally retarded member to do a 'low class' job, even if it might be very suitable for his ability level.

Families whose traditional occupation is unsuitable for the handicapped young person may find it hard to allow him or her to do some other sort of work. However, they need to realise that if he has no work he will be bored and may get into trouble. Everyone needs to feel that she is doing something useful. If the young person can earn some money by his work, and so make a financial contribution to the home, he will feel himself a valued member of the household.

Teachers should discuss with parents the sort of occupation they would like their son to learn. Parents should always be consulted about vocational activities being done at school. The teacher should know whether they would like their child to do work of this kind after leaving school.

* Marriage Questions. Whether a mentally retarded person should get married depends on whether he or she can take up the responsibilities of marriage, and also on the cause of their mental retardation. If their condition is not of genetic origin (i.e. it is clearly known to be a result of brain damage) any children they may have will be as normal as anyone else's children. If the condition is of genetic origin, they are more likely to have retarded children. Persons with Down's syndrome seem to be much less fertile than normal people, but if they do have children there is a 50% chance that the children will have Down's syndrome.

Some parents of mentally retarded sons have arranged marriages for them, hoping that the support of the extended family will be enough to provide for wife and children. The position of the wife in this situation is often difficult – the older generation may expect even more than usual to take decisions for the younger within the extended family. Sometimes the wife is of lower social standing than her husband's family – this being the reason why she consented to be married to a mentally retarded person. The husband's family may remind her all the time of her inferior social position. In some countries, there have been successful marriages between two people each of whom is mentally retarded.

If parents decide not to arrange a marriage for their mentally retarded son, they may worry about the young man's sexual feelings. Many severely retarded boys never grow up enough to want sexual relations with another person. But some do, especially if they have been sexually abused by adults. If it becomes a problem, the young man's sexual drive may be reduced by medical treatment. In this case, parents should seek advice from a properly qualified doctor.

Families who can afford it, usually make some arrangements for their child to be supported financially after their own death. Others hope that the child will be self-supporting. For many families, arrangements for the future are difficult and worrying. In practice, brothers or other relatives usually look after the mentally retarded person when the parents die.

17.5 SPECIAL PROBLEMS

Some families are difficult for teachers to work with in a cooperative way.

'Over protective' parents (usually mothers) do things for the child that he could learn to do himself, such as dressing himself. They may stop him doing anything that involves a slight risk (e.g. going out of the house by himself, going on school picnics, etc.) Parents become over protective for various reasons: feelings of guilt, fear of criticism by family or neighbours; feelings of pity, wanting to protect a 'weak helpless child'.

Children of over protective parents may become very shy and nervous, afraid to be away from their parents. This tends to confirm the parents' feelings. Most parents should be welcome in school whenever they wish to visit, but parents of shy, nervous children should be asked not to stay in the classroom during the child's first days or weeks at school, until she has settled in. They should be encouraged to allow the child to do more for herself and to have more freedom.

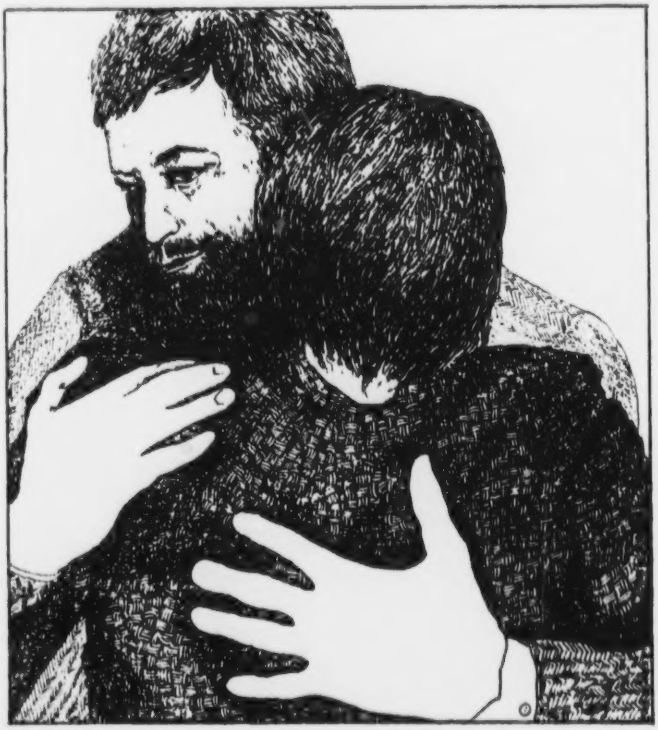
'Holy child'. Some families believe that their mentally retarded child is especially 'holy'. They do not like to correct the child's behaviour in any way. They give him anything he wants. Such children usually behave badly at home, but at school they may quite soon learn to behave well. Unfortunately, such families may remove their child from school if they find he is being disciplined there.

Family fights. In some families, the parents are unhappy together and quarrel often. The parents may disagree about how to behave towards their handicapped child, (e.g. one beats her, the other shows affection) or they may disagree about other things, using the child as a way of hurting each other, shouting or hitting the child when they are angry with each other, though the child did nothing wrong. Such families must be told, in a firm but kindly way, that if they behave so, the child is likely to develop problem behaviour. Parents should be persuaded to behave well to the child and to settle their problems. If they cannot do so, at least they should leave the child out of their battles.

'Tricks'. Some parents teach their children silly 'tricks' when they are young. Relatives may find it amusing to see a four year old hit his mother or a three year old spitting as a way to attract attention. These tricks stop being funny as the child grows up. They are a big problem by the age of 9 or 10. These parents must be told, patiently, that their attitude to the child is mistaken. He is not an object of fun. The tricks he learns will be painful to stop later. Where necessary, tricks can usually be un-learned by the methods described in Chapter 15.

A larger group of 'difficult' parents are those who do not think that special education can do any good. They are interested only in a 'cure'. Some will not enrol their child in school. Others do so, but take her away after a few days, saying that they are 'not satisfied'. Such parents may return several times over a few years. Finally they enrol the child for a longer time in school; but years of special education have been lost, which does the child no good.

Many parents, on first hearing that their child is disabled, feel that they cannot love and care for him. It is usual for parents to feel like that for some days or weeks. A small number of parents continue to feel this way. They may neglect the child, or fail to show love and affection. Sometimes a relative (e.g. grandparent or aunt) takes the child and cares for him. Wealthy families may give the child to servants to care for. Even such parents as these may grow to love their child when they realise that other people have positive feelings and affection for their child, and that he can make some progress.



17.6 BROTHERS AND SISTERS

Brothers and sisters of mentally retarded children also share in the family strains and stresses. Usually they will learn and share the same attitudes as their parents' towards the handicapped member. If their mother is always tired and her attention is taken up by the special child, the other children will get less attention than normal, which they will usually resent. Parents need to be reminded that all their children need love and attention. Without it, they may feel unhappy and rejected, and become depressed and disturbed. Most brothers and sisters are ready to help their handicapped brother or sister. Some become very capable at teaching him/her, and they usually have more time than their mother does. Parents can praise and encourage this, but they should not place too much burden on the brother or sister.

17.7 IN CONCLUSION

From the time when they learn that their child is 'different', parents may experience some or all of the following:- shock, grief, guilt, anger, depression, fear, isolation, religious anxiety, loss of confidence in themselves, feelings of rejection towards the child, severe worry about the future, shame, tiredness and tension from the day-to-day extra work. Help can be given to overcome these problems, so that parents share actively in the teaching of their child, helping the child to develop as fully as possible.

With this in mind, there should be clear and regular communication between school and home. Parents should be made welcome by the child's teacher; teachers should visit the child's home. Reports should be sent home. It is easier for parents to speak to teachers if they often see one another in an informal way - if the parent brings or collects the child from school, or if the teacher travels in the school vehicle collecting and returning the pupils. Parents who visit the school can often learn methods of coping with or teaching their child, by watching the teachers. Teachers can learn from parents too.

24 Hours Per Day. If a teacher finds himself feeling impatient or unsympathetic to the problems of the parents, he should remember that it is very different having the child at home all the time, compared with having the child at school for a few hours daily. The teacher should consider sometimes taking a pupil to spend a day in his home. He will find this very different from having the child in the classroom, where everything is arranged with mentally retarded pupils in mind.

NORMAL CHILD DEVELOPMENT

Material in this Appendix derives mostly from the work of Western child development specialists, especially Dr Mary Sheridan, who have studied and observed European and North American infants through many years. Such intensive study has not yet been reported in the Middle East and South Asia. On the basis of informal observation in Peshawar during the past eleven years, it seems that Pakistani infants pass through practically the same physical, social and mental stages of development as Western infants.

However, a child's development depends mostly on her experience and opportunities for learning. If a child has had no experience of one of the items in the following lists, she will perform at a lower level through lack of experience, not lack of ability. For example, a child aged 4 who has never lived in a house with stairs will need to hold the wall and put both feet to each step until he has had practice at stair climbing. A child who has never been shown picture books will not recognise pictures until she has got used to seeing them. A child who has not been given pencil and paper will not know how to hold and use the pencil.

The converse is also true. For example, children belonging to families where it is the custom to *squat* rather than to *sit* on the ground, are likely to develop this ability sooner than Western infants who seldom see anyone squatting.

*The ages given are an average for normal infants. **Within the average, there can be much variation, among normal infants.***

i) LARGE MOVEMENTS

One month

When lying on back, turns head to one side, knees are apart and soles of feet face each other. When put face-down, turns head to one side, arms and legs bend under body, with buttocks humped up. Neck cannot hold head up - if held sitting, head falls forward; if pulled up to sitting, head falls back. If held to stand with feet on firm place, stiffens body and presses down, making reflex 'steps'. Arm and leg movements are large and not well controlled - arms move more than legs. When resting, hands are closed holding thumbs in - when stretching arms, fingers spread out. When cheek is touched, head turns to one side; when ear is rubbed, head turns away.

Three months

When lying on back, head is held straight (in *mid-line*). When put face-down, uses forearms to lift up head and chest, with legs straight and buttocks flat. When held sitting up, can hold head up for several seconds. If held to stand with feet on firm place, knees bend. Arm and leg movements are smoother, less jerky. Kicks hard. Hands can be held loosely open and are sometimes brought together over chest or chin. Arms can be moved at the same time and same way.

Six months

Lying on back, can raise head or lift leg upright. When put face-down, lifts head and chest up taking weight on straight arms. Held sitting, holds head up and back straight. Can sit without support for a moment. Sits with support and turns head to look around. If held to stand with feet on firm place, takes weight on feet and bounces up and down. Holds out arms to be lifted. If hands are grasped, can lift self from lying to sitting. Can roll over from front to back.

Nine months

Sits without support for 10-15 minutes. If held to stand, takes steps on one foot after the other. Much arm and leg movement. Can turn body easily. Rolls or wriggles to cross floor. Tries to crawl along floor. Can pull self to standing and stand for a few minutes holding on to support.

Twelve months

Sits well for long time. Can get self up from lying down to sitting. Crawls quickly. Pulls self up to stand and gets down to floor again. Takes sideways steps to move around, holding chair, table etc. Walks forward with one or both hands held. Stands unaided for short time and may take a few steps.

Fifteen months

Walks with feet wide apart and arms held up - often falls or walks into chairs, table. Can get to feet unaided, but gets down by falling back or forwards onto hands. Crawls up stairs. Kneels down. Bends to pick something from the floor.

Eighteen months

Walks well with feet a little apart. Starts and stops easily. Runs stiffly. Cannot get round obstacle while running. Pushes and pulls toy, box, chair. Can carry a doll or toys when walking. Walks up stairs with hand held, but crawls backward down stairs or bumps self down in sitting position. Picks something up from floor without falling over.

Two years

Runs safely, getting round obstacles. Crouches, squats. Can walk backwards. Can climb on chair, table and get down safely. Walks up stairs and down, holding rail or touching wall, putting both feet on each stair. Can throw small ball without falling. Walks into big ball when trying to kick it.

Thirty months

Walks up stairs unaided. Walks down stairs touching wall. Runs and climbs well. Jumps with two feet together. Kicks large ball. Can stand up on toes, if shown. Can ride small tricycle, pushing with feet on ground.

Three years

Walks up stairs one foot on each stair, downstairs with two feet on each stair. Can run around corners. Walks on tiptoe. Can stand on one foot for short time.

Four years

Can turn sharp angles when running. Walks alone up and down stairs, one foot on each stair. Climbs up on ladders and small trees. Runs on tiptoe. Can hop on one foot.

Five years

Active and capable at climbing, sliding, digging, dancing. Stands on one foot for up to 10 seconds. Can hop 2 - 3 yards forward on either foot. Grips firmly with each hand.

ii) SEEING AND SMALL MOVEMENTS

One month

Turns eyes and head towards light: gazes at window and briefly follows light (e.g. candle) moving near eyes. Looks at mother's face as she feeds and talks to.

Three months

Moves head to look around. Interested in nearby faces, and watches people moving nearby. Follows own hands as she moves them in front of her face.

Six months

Moves head and eyes eagerly to see what is happening. Watches adult moving across room. Gazes at object within 12 inches and reaches out both hands to get it. Uses whole hand to pick things up.

Nine months

On seeing small object, stretches out hand to grasp it. Passes object from hand to hand, turning it over to examine. Pokes at small object with index finger. Uses finger and thumb like scissors to grip small object.

Twelve months

Picks up small object neatly between finger and thumb. Throws object to ground deliberately. Points to things she wants.

Fifteen months

Places one brick on another, if shown how. Grips crayon and copies scribbling movement if shown. Looks at pictures in book. Stands at window to watch things happening outside.

Eighteen months

Scribbles when given crayon and paper. Builds up 3 bricks if shown how.

Two years

Picks up very small thing (e.g. pin, thread) neatly and quickly. Takes paper wrapper off sweet. Builds up 6 bricks. If given crayon and paper, makes dots and circular scribbles. Can copy drawing of up-and-down line. Recognises fine details in picture. Can turn pages of book. Recognises people in photograph. Left- or right- handedness becoming clear.

Thirty months

Builds up 7 or more bricks; puts bricks in line to make 'train'. Copies drawing of side-to-side line, circle and V shape. Draws and paints dots and circular shapes.

Three years

Builds up 9 bricks. Makes bridge shape with 3 bricks if shown. Copies drawing of cross shape. Copies circle already drawn on paper. Draws person with head and some features. Matches two or more colours. Makes cuts with scissors.

Four years

Builds up 10 or more bricks and bridges of three. Builds 6 bricks in 'staircase' if shown. Draws people with head, legs, features and trunk (and sometimes arms). Matches and names four colours.

Five years

Copies square, triangles and letters. Draws recognisable person, house, car. Counts fingers on one hand. Matches 10 or more colours.

iii) HEARING AND SPEECH

One month

Reacts to loud noise: stiffens, blinks, spreads fingers and toes, may cry. Cries loudly if hungry or uncomfortable. Makes small noises when content. If crying quietly, stops at sound of soothing voice (but not if screaming).

Three months

Still unhappy at loud noise: blinks, cries, turns away. Makes sounds when spoken to or pleased. Cries if uncomfortable or angry. Listens to sound of spoon on cup. Excited at sound of approaching footsteps or voices.

Six months

Turns to mother's voice at distance. Makes many sounds (e.g. *goo, dar, adah, erlah, muh*). Laughs at play. Screams if angry.

Nine months

Shouts for attention. Babbles repeated sounds (e.g. mumumu, bababa, dadada). Understands 'No' and 'Bye-bye'. Tries to copy some sounds (e.g. *brrrr, cough*).

Twelve months

Knows own name and turns on hearing it. Babbles loudly much of the time. Understands several words (e.g. family names, cup, water, banana) and simple command with gesture (e.g. *Come to mummy, Give it to me, Shake hands*, etc.)

Fifteen months

Makes many different 'nonsense sounds'. Says several clear words and understands more. Understands and obeys simple command (e.g. *Give it to me; Get your dolly*). Points to known people, if asked.

Eighteen months

At play, still talks 'nonsense' to self (a mixture of real words and other sounds, trying out speech patterns). Uses 6-20 real words, understands many more. Often repeats last word spoken to her. Tries to sing and join in simple rhyme. Knows words for hair, hands, feet, nose, eyes, mouth, shoes.

Two years

Knows 200 or more words, not all pronounced correctly. Can say full name. Talks to self about what is going on. Still repeats what other people have said to him. Asks questions, (***What? Where?***) Uses 'I, Me, You'. Stuttering is common, and normal. Can learn and recite rhyme. Enjoys hearing simple stories.

Three years

Has large vocabulary. Knows name and father's name. Uses plurals and pronouns correctly. Still talks a lot to self. Carries on simple conversations and talks about past experiences. Asks ***What? Where? Who?*** Likes stories.

Four years

Speech is clear. Talks sensibly about recent events and experiences. Asks ***Why? When? How?*** Tells long stories.

Five years

Speech fluent, basic grammar correct, but still developing complex sentences and vocabulary.

iv) SOCIAL BEHAVIOUR

One month

Starts smiling at about six weeks.

Three months

Begins to respond to known situations, smiling and making cooing sounds. Responds to friendly handling, likes gentle tickling.

Six months

Puts to her mouth whatever she grasps. Begins to be uneasy with people she does not know.

Nine months

Holds biscuit, bites and chews it. May react with anger and resistance. Tries to take spoon if spoon fed. Shy of strangers. Still puts objects to mouth.

One year

Drinks from cup. Holds spoon but needs help. Gives toys if asked. Finds toy that has been hidden. Likes to be near an adult. Begins copying - waves bye-bye, claps hands etc.

Fifteen months

Drinks from cup without help. Eats with spoon. Indicates if clothes are wet. Throws toys quite often. Restless and curious. Touches whatever is in reach. Needs adult's presence.

Eighteen months

Drinks without spilling, holding cup in both hands. Takes off shoes, socks, hat. No longer puts toys to mouth. Copies simple activities - pretends to read book, dusts chairs etc.

Two years

Eats with spoon without spilling. Puts on shoes. Knows day-time toilet needs. Often runs out of house. Copies mother doing housework. Demands much attention, clings to adults. Has tantrum when unable to get own way. Refuses to share. Resents attention given to other children.

Thirty months

Can pull down elasticated pants or shalwar. Very active and disobedient. Violently angry if he does not get his way. Watches other children playing and sometimes joins in.

Three years

Washes hands. Affectionate and friendly. Likes to help adults. Plays with imaginary people and objects. Plays with bricks, toy cars etc. Plays with other children. Understands sharing. Friendly to smaller children.

Four years

Washes and dries hands. Cleans teeth. Dresses and undresses, needing help only with knots. May be verbally cheeky. Plays with other children but often fights. Understands taking turns. Concerned for younger children's welfare.

Five years

Washes, dresses and undresses alone. Sensible, controlled, independent in general behaviour. Plays game with rules. Understands time in relation to daily program. Takes care of younger children.

RECORD KEEPING

1) PURPOSE

The purpose of record keeping as described here is to *record the pupil's abilities and progress.* Record keeping is an essential aid to teaching. The teacher should herself be encouraged by seeing the progress recorded. The records should help the teacher to decide what each pupil needs and is ready to learn and to see whether a teaching program has succeeded.

If no record is made, the teacher and the child's family may soon forget what the child could or could not do a few months before. During a pupil's first month at school an assessment should be recorded of what the child can do, which should then be discussed with the parents. It can be shown to them again later if they complain that their child is making no progress.

The records described here should be *kept by the teacher in the classroom* and referred to often. They are different from 'office' records concerning family, medical history etc., which are not kept in the classroom.

2) SKILLS CHECK-LISTS

A Check-list in chart form should be kept for each pupil. An example is to be found in Appendix III. (Separate copies of this Check-list in Urdu will be produced by the Mental Health Centre, Mission Hospital Peshawar, in 1990).

Check-lists are available from various sources. Those designed for small children seem to be useful in most situations, independent of local culture. But more advanced *social skills* depend on cultural contexts. They need careful adaptation if used outside their country of origin. It is usually better to make up a local social skills check-list: several teachers should write down all the locally-needed social skills and then compare notes.

Check-lists are important for making a first assessment and for providing goals toward which teaching and learning are directed. There is also a need for more detailed notes, as described in the following sections.

3) REGULAR PROGRESS REPORTS

At regular intervals, e.g. once a month, a progress report should be written for each pupil recording everything the child is known to have learnt during that time, plus any changes in behaviour. Progress reports may be written in a form and language that is suitable for sending to parents.

4) CURRENT TEACHING TARGETS

Writing a list of current teaching targets each month helps the teacher think what she wants each pupil to learn. Targets should be simplified if, after a couple of weeks, the child is making no progress. (But some pupils will need longer to learn even the simplest tasks.) *To list teaching targets and to record progress are two activities that make the special teacher's work different from that of the child minder who merely plays with the children and keeps them from any harm.*

5) BEHAVIOUR RECORDS

Examples are given in Chapter 15, pages 156/157.

6) DAILY NOTES

A short note may be made for each pupil, recording any new behaviour, any progress, new interest, or anything out of the ordinary that takes place during the day. On most days, this need only take about 5 minutes writing for the whole class.

Alternatively, the teacher may keep a notebook with small individual 'target charts', for each of the targets to which each pupil is working. The teacher can then mark with a tick or cross every time the child attempts the task, whether or not she succeeds. The teacher should decide how many times the task must be successfully completed, before the pupil is counted as 'knowing' it. For one sort of task the teacher may require 10 successes in a row, while for another task only 5 successful completions may be enough. The teacher will need to keep her notebook with her at all times, but marking it will only take up a few moments during the day.

* *Example of a defined task*: Child correctly identifies a 10 rupee note, when a 1 rupee and a 10 rupee notes are presented and child is asked, "Show me the 10 rupee note". Task is completed when child succeeds ten times out of ten.

* *Example 2*: Child does up one-inch buttons when asked, with only verbal or gestural prompt. Task completed when child succeeds five times out of five. *When the child completes this task 5 times successfully in a row, the teacher may redefine the target as* : Child does up one-inch buttons on request, unaided (without any prompting).

The teacher may prefer to use a number code for success, so that she can automatically redefine the target:

0 = inappropriate response.
1 = incorrect response.
2 = achieved with physical assistance.
3 = achieved with verbal or gestural prompts.
4 = achieved without help.

E.g. Child washes and dries hands when told "Go and wash your hands". Initial target is 2 (achieved with physical assistance). Once this is achieved, the new target set is 3 (achieved with verbal or gestural prompts).

7) NOTES ON I.Q. TESTS

a) What is I.Q. ? If a child can do successfully the (mental) tasks that an average child of e.g. 7 years can do, then she is said to have a 'mental age' of 7. Intelligence Quotient (I.Q.) is the ratio of Mental Age divided by Real Age, multiplied by 100. If a 6 year old child can do only the tasks that a normal 3 year old can do, his I.Q. is (3/6) x 100 = 50.

b) What are I.Q. tests ? I.Q. tests cover a range of mental abilities including perceptual skills (as described in Chapter 10), arithmetic skills, short term memory skills, vocabulary and use of language. Some tests include drawing ability. Tests have been devised for different age groups, including adults. They have been designed and tested so that the *average* mark for any age group is known, and the person who achieves that mark is said to have an I.Q. of 100. Statistical methods are used to assign I.Q. values to scores in such a way that (for most tests) slightly more than two thirds of the population will have an I.Q. score between 85 and 115, the *average* being always 100. One sixth of the population will then have I.Q.s above 115 and one sixth below 85. (Some tests make these markers 120 and 80). The I.Q. of a normal *adult* is based not on the concept of 'mental age' (which becomes meaningless over the age of about 16), but entirely on the statistical understanding of test scores.

c) When are I.Q. tests useful ? When used correctly, I.Q. tests may show an individual child's mental abilities and weaknesses and may help in designing a teaching program. The observant teacher can find out the strengths and weaknesses herself, without I.Q. tests, by trying out the various activities in this Manual. Many children show their true abilities *only* when they are relaxed and feeling happy in a familiar classroom. They may do less well under the stress of a test situation.

Tests may be useful when a teacher needs independent evidence to show that a child has normal or near-normal intelligence, e.g. when a child with severe physical, emotional or sensory disability wants to be enrolled in a normal school or college. These children need specially adapted tests, which should be given by a well qualified tester who has a lot of experience of testing children with different disabilities.

I.Q. tests may be used with normal people to test whether they are suitable for particular jobs, as part of a selection procedure. In some countries they are used to identify children who have special abilities and gifts.

d) What I.Q. tests are NOT. The results of an I.Q. test are *not* something with which to 'label' a child for life. Children can learn skills related to the test items, and their score may improve. Maladjusted children may perform badly at a given time, but as they grow more stable emotionally, their results may improve very much. Some children dislike test situations and show much less than their true ability level.

I.Q. tests are not a suitable basis for a curriculum in the special school.

I.Q. tests are not the best way to evaluate the mental ability of children who are developmentally below a 5 year old level (approximately). It is better to use a developmental chart such as the one shown in Appendix I, observing the child over a period of several weeks.

I.Q. tests may be unfair to some children. Each test is designed and *standardised* using a large number of children (or adults) from a particular cultural and social background, with similar educational and other experiences. Children from a different background with different experiences may be at a disadvantage and their score on such a test has no meaning.

I.Q. tests should never be used alone in deciding a child's educational future. In countries which have developed systems of special education, there is an overlap in the I.Q. scores of pupils who are able to attend normal schools, and those in special schools for the mentally handicapped. Some pupils who attend normal schools have *lower* I.Q. scores than some of the children needing special education. There is a similar overlap between chidren attending schools for mildly and severely retarded pupils.

Mental retardation should never be defined solely in terms of I.Q.. As stated in Chapter 1, a mentally retarded person is 'both less clever than a normal person, and he does not do the normal things expected by society'. If a person's I.Q. score is low, but he behaves as a normal person is expected to do, then he should not be regarded as 'mentally retarded'. However, the lower the person's I.Q., the less likely it is that he will have learnt to do all the things that a normal person can do.

Finally, no child's I.Q. score has any meaning unless the child's *age* is known accurately, and the I.Q. test has been standardised with a group of children *whose ages are all known accurately.*

SKILLS CHARTS & CURRICULUM SUMMARY

The charts in the next pages are intended as a tool to help the teacher:-

(a) to assess each pupil's abilities;
(b) to record the pupil's progress;
(c) to decide what the pupil should learn next.

To decide what to teach a mentally retarded pupil, the teacher must first assess the child's abilities, to find out what she already knows and can do. Only then is it possible to set realistic goals for what she should learn next. In most cases, the numbered lists of skills in these charts are in developmental order. This means that a child usually learns the earlier-listed skills before she learns later skills.

The teacher should (i) aim to fill any gaps in the child's progress on the chart; (ii) choose the next skill in numerical order. For example, the teacher observes and records that a child has learnt skills 1, 2, 3, 4, 6, 7 on one of the charts. The next teaching plan will be to fill in the gap (5) and then go on to 8, 9, 10.

The Charts provide a way to check on the mentally retarded pupil's progress, which may go forward very slowly. Often the teacher will have to break down each skill into several steps, smaller than those recorded in these charts, to set goals that can be achieved within a few weeks. Multi-handicapped children in particular need to take many more steps to reach each goal. Examples of skills broken down into many steps may be found in developmental charts designed for young babies.

THE CURRICULUM

The total of all the skills, knowledge and experience that a school tries to teach and give to its pupils is known as the curriculum. The skills and abilities shown in these charts should form a large part of the curriculum for mentally retarded children. But there are some parts of the curriculum which are not easily listed in charts, e.g. those which show progress in self-expressive behaviour.

Self-expression may include art and music, drama and mime, enjoyable activities in which some mentally retarded people may be highly talented. Taking part in sport is also enjoyed by most pupils and helps to integrate them with normal children of their own locality. Some pupils may have surprisingly good sporting abilities. The pupils' growth of awareness about the world in which we live, about themselves and their environment, is not easily measured or charted. However the pupils should be given every chance to learn about everyday life, how things are made, where our food comes from and other topics of general knowledge. Religious knowledge should also be included.

The charts of vocational skills, especially for handicrafts, give only a few examples of the kind of skills pupils may learn. More charts can be added if other skills are taught.

No chart is shown for 'emotional development'. Charts of normal development show that the normal child swings between times of being dependent on a lot of adult encouragement, with strong feelings which he expresses forcefully, and other times of seeming to be emotionally well balanced and able to control the way he shows his feelings. The teacher should, however, note any emotional problems such as :

- Is he afraid of strangers ?
- Does she have temper tantrums ?
- Is he very dependent on encouragement from adults or does he like to play alone ?
- Is her attention easily distracted ?

Special records will need to be kept when managing behaviour problems and emotional difficuties. (See, for example, p.156/157).

Procedure

A new set of charts should be started for each new pupil, by observing her during her first few weeks at school. Then her charts should be updated regularly, as she begins to learn new skills. The teacher should place a tick against each skill *only when the pupil can show it correctly, without help, whenever asked.* Before this successful, unaided completion, a small mark may be made on the chart to show that the skill is a target.

There is some repetition in the charts. For example, naming colours is included as one skill in the language chart, but is broken down into six more detailed skills in the chart on 'Perceptual development'. Some skills from the chart on 'Early social development' are repeated in the chart on 'Social relationships' because they are needed before any more advanced social skills can be learnt. The 'concept of object permanence' is needed in the early stages both of language development and of pre-counting skills. This concept is broken down into more detailed small steps in the section on language development. The pupil will not be able to go on to other pre-number skills until he has fully learnt these.

** *The teacher should keep a set of charts in the classroom* **
** *for each pupil, for reference, planning and updating.* **

These charts are in daily use at the Mental Health Centre, Peshawar. They have been changed and modified regularly as a result of experience with individual children and of reading the results of child development research.

They are not a final statement about the skills that children need to learn or the order in which they will learn them. But they do provide a framework which can be further modified on the basis of teacher experience or future studies.

** SUMMARY OF SKILLS CHARTS **

Development of Movement

1. Skills using large movements
2. Skills using fine movements

Communication, Language and Speech

3. Early social development and communication
4. Early cognitive skills and object-play
5. Language comprehension
6. Use of language

Skills for Daily Living

7. Eating
8. Washing, toilet etc.
9. Dressing
10. Social relationships
11. Out and about

Formal Subjects

12. Counting and numbers
13. Number related skills
14. Perceptual and reading-related skills

Pre-Vocational Skills

15. Cooking
16. Sewing
17. Household tasks
18. Carpentry
19. Gardening
20. Handicrafts

APPENDIX III

1. SKILLS USING LARGE MOVEMENTS

Tick

1. Sits without support (for at least 5 minutes) ....___
2. Reaches out arms to touch objects ....___
3. Stands when holding onto support............................___
4. Pulls self upright..___
5. Bends to look for object on floor...........................___
6. Moves by crawling or shuffling..............................___
7. Walks with both hands held (at least 5 steps)...............___
8. Walks with one hand held " " " "............................___
9. Walks when pushing a large object (chair or cart)...........___
10. Walks alone (at least 5 steps).............................___
11. Walks upstairs, putting 2 feet on each step, with hand held.___
12. Carries large toy (such as doll or bear) while walking.....___
13. When standing, bends to pick up objects from floor.........___
14. Throws small ball without falling over.....................___
15. Dances to music..___
16. Jumps with both feet together..............................___
17. Moves large objects (chairs, boxes) by pushing and pulling..___
18. Kicks large ball without falling over......................___
19. Walks upstairs alone, holding rail.........................___
20. Walks downstairs with hand held............................___
21. Runs safely, bending knees, stopping and starting easily....___
22. Pulls or pushes door open..................................___
23. Climbs on chair and stands on it...........................___
24. Arranges seating at table - moves chair, sits on chair, pulls chair in to table...___
25. Catches ball...___
26. Walks backwards..___
27. Stands on one foot...___
28. Rides toy tricycle or car..................................___
29. Walks upstairs, one foot on each step without holding......___
30. Stands on tiptoe...___
31. Walks downstairs, one foot on each step without holding....___
32. Skips with rope..___
33. Hops on one leg..___
34. Climbs on climbing frame...................................___
35. Hits ball with bat...___
36. Rides two wheeled bicycle..................................___

(Notes should include any peculiarities of movement, fear of climbing or of contact with the floor)

2. SKILLS USING FINE MOVEMENTS

1. Holds objects briefly (gripping with fingers and palm of hand.___
2. Able to grasp object held out by another person..............___
3. Moves objects from hand to hand..............................___
4. Picks up small objects between thumb and forefinger..........___
5. Puts down object ....___
6. Uses one finger to explore and poke at objects...............___
7. Bangs toy with stick or hammer...............................___
8. Makes marks with pencil/crayon/chalk (or with finger in sand).___
9. Puts one brick on top of another.............................___
10. Scribbles up/down with crayon (pencil/chalk, finger in sand)..___
11. Turns pages of book...___
12. Takes lid off box...___
13. Lines up two or more blocks, e.g. to make a 'train'..........___
14. Uses paint brush..___
15. Builds tower of at least 6 bricks...........................___
16. Tears newspaper to obtain piece.............................___
17. Threads big beads on string (or string thru big holes in card)___
18. Makes circular scribbles....................................___
19. Unscrews lid of jar...___
20. Cuts with scissors..___
21. Pours water from one cup into another.......................___
22. Imitates drawing vertical and circular strokes..............___
23. Puts lid on box ....___
24. Builds constructively with bricks; makes model with dough/clay___
25. Folds in half a square piece of paper.......................___
26. Cuts out pictures roughly...................................___
27. Cuts cloth with scissors....................................___
28. Winds string into ball......................................___
29. Puts nut on bolt and tightens...............................___
30. Turns door knob/handle......................................___
31. Threads small beads (or laces through holes in shoe)........___
32. Piles cards neatly..___
33. Turns key in keyhole..___
34. Hammers nails into piece of wood............................___
35. Unties a loosely tied knot ....___
36. Sews a line of stitches.....................................___
37. Ties a simple knot..___
38. Copies drawing of circle, 'V' and 'X' shapes................___
39. Cuts out pictures neatly....................................___
40. Draws man, house..___
41. Traces over shapes..___

NOTE left or right hand preference if any, visual difficulties if any.

3. EARLY SOCIAL DEVELOPMENT AND COMMUNICATION

** Relating Tick
1. Responds to sight or voice of familiar adult ....___
2. Smiles/laughs to show pleasure...............................___
3. Indicates rejection of thing/activities he does not like.....___
4. Uses methods for attracting attention (eg shouting,
lifting hands to be picked up).....___
5. Points with eyes to indicate objects that interest him.......___
6. Looks at things together with teacher........................___
7. Points with fingers to indicate objects......................___
8. Uses sounds to attract attention.............................___
9. Has special sounds to attract attention (eg mumum, dada).....___
10. Enjoys simple games which involve taking turns
(e.g. clapping hands or hitting drum in turn).....___

** Attention
1. Looks at person talking/playing..............................___
2. Looks at moving object to which attention is directed........___
3. Looks at toy to which his attention has been drawn,
then looks back to teacher.....___
4. Watches face/hand movements of teacher during action songs...___
5. Looks at picture book with teacher...........................___
6. Watches people who are having a conversation,
looking from one to the other.....___

** Imitation
1. Copies simple actions, e.g. clapping hands, rubbing nose
which he has already recently done himself ....___
2. Imitates action which he himself has not just done...........___
3. Imitates actions involving objects
e.g. kissing doll, hitting drum.....___
4. Imitates playful sounds e.g. cough, sneeze,..................___
5. Imitates babbling sounds (first made by self, unprompted)....___
6. Imitates simple words..___

** Listening:
1. Responds by turning towards sounds e.g. bell.................___
2. Shows pleasure (or displeasure) on hearing music.............___
3. Quietens or looks round, on hearing a voice..................___
4. Responds to hearing own name.................................___

** Vocalisation:
1. Makes 'ah' sound ....___
2. Makes vowel sounds including 'eeh' ....___
'oh' ....___
'ooh' ....___
3. Makes sequences of vowel sounds ....___
4. Makes consonant sounds (k/g, b/p, m, d) ....___
5. Babbles freely repeating strings of sounds (e.g. bababa)....___
6. Babbles tunefully to self while playing, using a variety of stress and intonation patterns. ....___
7. Joins in song tune (not necessarily with recognisable words).___

** Communication:
1. Indicates as follows, using face/eye/body movements or sounds:
Want...attention ....___
an object ....___
an action ....___
Rejection ....___
2. Uses gesture or word to indicate (describe)
Want....attention ________________________
........object ________________________
........action ________________________
Greetings....welcoming ________________________
....departing ________________________
Comments ________________________

4. EARLY COGNITIVE SKILLS AND PLAY WITH OBJECTS

1. Explores objects by touch/banging/shaking/taking to mouth....___
2. Knocks two objects together..................................___
3. Puts one object on top of another............................___
4. Shows awareness of different use of objects during play, eg taking cup to mouth, putting comb to head etc.....___
5. Puts small toys in and out of containers.....................___

** Object permanence:
1. Removes small cloth that is put over toy which he is using...___
2. Looks under cup which he watched being placed over a favorite small toy.....___
3. Looks for toy he has watched rolling away from him...........___
4. Deliberately drops toys and watches them fall................___
5. Looks for object that has rolled or fallen out of sight......___
6. Knows where an object/toy is kept and looks for it there.....___

** Imaginative play:

1. Pretends to eat imaginary food................................___
be asleep................................___
wash................................___

2. Gives imaginary food to teacher or to another child..........___

3. Plays with doll, feeding................................___
putting to sleep................................___
washing................................___
combing hair................................___

4. Pretends to eat food from picture................................___

5. Kisses picture of baby................................___

6. Plays long imaginative games with doll or toy animals ....___

7. Uses toys/objects to represent something else
e.g. a box as a toy car, flowers as food, etc. .....___

5. LANGUAGE COMPREHENSION

1. Follows simple instruction in clearly defined context accompanied by gesture

____________________ ____________________

____________________ ____________________ ... ..___

2. Understands instruction words in particular context without any gesture

____________________ ____________________

____________________ ____________________..........___

3. Identifies people/objects named (in particular context)
e.g. show me your shoe, where's your nose, where's Rosie ?

____________________ ____________________

____________________ ____________________...........___

4. Understands words in several contexts

____________________ ____________________

____________________ ____________________

____________________ ____________________..........___

5. Understands more than 10 object names in several contexts...___

6. Understands action words ______

______ ______

______ ______..........___

7. Shows ability to match colour....................................___

8. Understands colour words in several contexts ______

______ ______ ______ ....___

9. Understands question words ______ ______

______ ______ ______ ....___

10. Demonstrates, by sorting and ordering, size concept.........___

11. Understands size words in several contexts.................___

12. Demonstrates in role play understanding of words that describe moods (e.g. happy, sad, angry) ______

______ ______ ______...........___

13. Understands place and time words (e.g. in, on, behind, in front, with, beside, to, from, before after) ______

______ ______ ______ ______ ....___

14. Understands order involving 2 steps. (e.g. close the window and switch on the fan)..............................___

15. Understands whether an event being described took place in past or is happening now, i.e. understands difference in meaning between past and present forms of action words......___

16. Understands instructions involving 3 steps (e.g. fetch a jug from the kitchen, fill, and water the plants)...........___

17. Understands difference between a request and an order.......___

18. Understands whether event being discussed is happening now or will happen in future, i.e. understands difference in meaning between present and future forms of action words ...___

19. Understands difference between a 'promise' and 'maybe' or "I'll try" to do something ....___

20. Understands 'passive' forms, i.e. can distinguish who did the action in e.g. "the girl hits the boy" and "the girl was hit by the boy"...............................___

21. Understands conditional instructions e.g. "Walk, if weather is dry, but take taxi if raining". "If there are tomatoes in the shop bring some. If not, bring garlic"...............___

6. USE OF LANGUAGE

1. Uses words imitatively ____________ ____________

____________ ____________ ____________ ....___

2. Uses words spontaneously ____________ ____________

____________ ____________ ____________

____________ ____________ ____________...........___

3. Uses words of each of the following kinds :
   a) names of people ____________ ____________

   ____________ ____________ ____________............___

   b) Names of object ____________ ____________

   ____________ ____________ ____________

   ____________ ____________ ____________ ....___

   c) social words ____________ ____________

   ____________ ____________ ____________ ....___

d) action words ____________ ____________

____________ ____________ ____________

____________ ____________ ____________ ...___

e) describing words ____________ ____________

____________ ____________ ____________ ...___

4. Can join in simple 'conversation' with teacher about things around him....___

5. Talks with other children ....___

6. Puts two words together in the following ways :-

a) actor + action (eg *Daddy come*) __________+__________

__________+__________ __________+__________ ....___

b) action + object (eg *eat cake*) __________ +__________

__________+__________ __________+__________ ....___

c) social word + name (eg *bye-bye Auntie*) ________+________

__________+__________ __________+__________ ....___

d) describing word + person/object/action (eg *good Mummy, big book, run fast*) __________+__________

__________+__________ __________+__________ ....___

e) actor+object (eg *Arif (throw) ball*) __________+__________

__________+__________ __________+__________ ....___

f) owner+object owned (eg *Bani shoe*) __________+__________

__________+__________ __________+__________ ...___

g) person/object+place (eg *book (on) table*)________+________

__________+__________ __________+__________ ....___

h) action+place (eg *go bathroom*) ________+________

________+________ ________+________ ...____

j) refusal+object (eg *no school*) ________+________

________+________ ________+________ ...____

k) question+object/action (eg *where pencil*) ______+______

________+________ ________+________ ...____

7. Uses place and time words (in, on, under, behind, beside, with, to, from, before, after) ______ ______

______ ______ ______ ______

______ ______ ______ ______ .....____

8. Tries to describe remembered events (eg that took place earlier in the day, yesterday, or during holidays .....____

9. Uses question words (eg what, where, which, when, who, how much, why) ________ ________ ________

________ ________ ________ ________ .....____

10. Puts three words together: ______+______+______

______+______+______

______+______+______ .....____

11. Correctly forms plural of words (eg books, spoons, men)

________ ________ ________ .....____

12. Expresses possession correctly (eg Ahmed's shoe)

________ ________ ________ .....____

13. Uses correct present tense form of action words ....___
14. Uses correct form of describing words ....___
15. Uses correct degree of politeness in addressing people....___
16. Uses 'someone', 'something', 'somewhere'..................___
17. Uses 'nothing', 'no-one', 'nowhere'.......................___
18. Uses continuous form of action words (eg running, going)..___
19. Makes up simple stories...................................___
20. Attempts to express past form of action words.............___
21. Asks permission with appropriate degree of politeness.....___
22. Uses correct form of past tense...........................___
23. Describes remembered past events in detail................___
24. Attempts to describe action planned/hoped for the future..___
25. Asks questions to get information in order to plan
    actions (eg can ask directions to get to a place)....___
26. Describes feeling unprompted (eg says if unwell/tired)....___
27. Uses correct form of words to express future actions .....___
28. Uses words like 'only', 'also', 'because'.................___
29. Expresses necessity: "I must..." ....___
30. Uses correct forms of sentence to express "if, perhaps"...___

7. EATING

1. Shows by making movements/sounds that he recognises food..___
2. Opens mouth for food.......................................___
3. Sucks food but cannot yet chew.............................___
4. Holds biscuit and takes to mouth...........................___
5. Drinks from cup held by adult..............................___
6. Bites biscuits etc...___
7. Holds cup together with parent.............................___
8. Chews hard food (biscuit, toast, apple)....................___
9. Drinks from cup unaided using two hands to hold cup........___
10. Feeds self using fingers..................................___
11. Takes spoon filled with food to mouth with help...........___
12. Feeds self with spoon unaided.............................___
13. Drinks from cup using one hand............................___
14. Peels banana or unwraps sweet.............................___
15. Picks up food in socially accepted way
    (using piece of chappati or fork).....................___
16. Drinks from breakable glass safely........................___
17. Pours water from jug into cup without help................___
18. Behaves acceptably when sitting at a meal with others.....___
19. Spreads butter or jam on toast using knife................___

20. Cuts fruit with knife..___
21. Gets self a drink from tap, water cooler etc. unaided .....___
22. Eats meals unaided.................................   ......___
23. Serves self appropriate amount of food.......................___
24. Peels orange without difficulty.............................___
25. Eats mango without mess.....................................___

8. WASHING, TOILET, ETC.

1. Uses pot sometimes if placed on it regularly...............___
2. Indicates when wet or dirty.................................___
3. Indicates when needs to use pot/toilet......................___
4. Has only occasional toilet 'accidents'......................___
5. Squats or seats self on ordinary lavatory...................___
6. Blows/wipes nose when told to do so.........................___
7. Uses toilet, needing help only to clean self afterwards....___
8. Washes hands and dries them with supervision...............___
9. Does everything necessary in toilet without help...........___
10. Blows/wipes nose when necessary - unprompted...............___
11. Washes hands well, using soap, rinsing and drying hands....___
12. Controls or deals appropriately with dribble...............___
13. Washes face adequately unaided.............................___
14. Brushes/combs hair when told to do so......................___
15. Tidies hair unaided using comb and mirror..................___
16. Washes feet adequately.....................................___
17. Takes bath unaided...___
18. Cleans teeth in locally acceptable way.....................___
19. Washes hair..___
20. Cleans and cuts fingernails................................___
21. Older boy shaves self or goes to barber alone, when needed.___
22. Girl arranges hair unaided.................................___
23. Older girl deals with feminine hygiene unaided.............___
24. Older girl puts on make-up appropriately ....___
25. Uses public toilets or similar facilities competently......___

9. DRESSING

1. Does not resist being dressed...............................___
2. Holds out arms and legs when being dressed.................___
3. Pulls off shoes...___
4. Takes off hat...___

5. Puts on hat....................................___
6. Takes off socks.................................___
7. Pulls up shalwar/underpants/trousers..........................___
8. Puts on sleeveless waistcoat...............................___
9. Puts arms into sleeves of loose shirt, jacket or coat......___
10. Takes off clothes with no fasteners or if helped with fasteners...___
11. Puts on shalwar/underpants/trousers unaided except for fastener....___
12. Puts on open fronted uppergarment (coat, sweater, shirt), except for buttons/fastening ....___
13. Puts on upper garment that is pulled over head (sweater, kameez), unaided....___
14. Puts on socks ....___
15. Puts on shoes if helped with fasteners and shown which shoe for each foot...............___
16. Opens zip...___
17. Closes zip..___
18. Undoes buttons....................................___
19. Fastens buttons...................................___
20. " poppers...................................___
21. " hooks.....................................___
22. Recognises difference between front and back of clothes....___
23. Recognises whether clothes are inside out or right way.....___
24. Unties laces......................................___
25. Ties laces..___
26. Recognises difference between left and right shoe..........___
27. Dresses and undresses without any help....................___
28. Puts dirty clothes in appropriate place....................___
29. Chooses appropriate clothes for weather/occasion..........___
30. Cleans shoes......................................___
31. Washes clothes....................................___
32. Irons clothes.....................................___
33. Does simple repairs to clothes, e.g. sews on buttons.......___
34. Chooses own clothes and shoes to buy......................___

10. SOCIAL RELATIONSHIPS

1. Smiles in response to adult attention.......................___
2. Recognises familiar adults, but is shy with strangers......___
3. Plays alongside other children.............................___
4. Cooperates when adult gives simple instruction (e.g. "no", "give me") accompanied by gesture....___

5. Plays cooperatively with other children...................___
6. Takes part in activities involving taking turns.............___
7. Is affectionate to younger children ....___
8. Shares sweets or other treats with friend(s)...............___
9. Responds to sadness in other child by showing concern.......___
10. Behaves as needed towards authority figure (e.g. policeman).___
11. Is polite to strangers, but cautious when needed............___
12. Behaves in polite and respectful way towards people of opposite sex...........___
13. Behaves appropriately with guests...........................___
14. Behaves appropriately to unfamiliar members of extended family...___
15. Entertains guests as needed, if alone when they arrive......___
16. Copes sensibly if teased (without getting into fight or tears).....___
17. Copes with minor responsibilities at weddings, funerals or other family functions...........___
18. Takes responsibility for home duties such as checking doors are locked, lights switched off at night...___

II. OUT AND ABOUT

1. Plays with other children outside home.......................___
2. Behaves reliably if taken shopping...........................___
3. Runs errands alone to nearby shops if given written note for shopkeeper.......___
4. Remembers messages for shopkeeper............................___
5. Walks safely down road ....___
6. Crosses street safely..___
7. Travels alone by public transport on a short, familiar trip.___
8. Buys self drink from stall...................................___
9. Is aware of dangers of becoming involved in fights or political demonstrations...........___
10. Is aware of dangers of becoming involved in illegal/immoral activities and knows how to turn down requests to do so....___
11. Asks directions to find a place not previously visited......___
12. Buys self meal..___
13. Finds way around own town by public transport..............___
14. Rides bicycle safely on streets.............................___
15. Knows what to do in emergency (e.g. fire, injury, burglary).___
16. Attends social functions unsupervised, without problems.....___

12. COUNTING AND NUMBERS

Tick

1. Looks for a toy he sees being hidden, and finds it..........___
2. Matches one of a set of objects to each of another set (e.g. give one sweet to each child, put one spoon in each cup)
   - when there is exact correspondence of numbers.............___
   - when there are some left over.............................___
3. Matches together pairs of identical objects.................___
   pictures................___
   shapes..................___
4. Matches together pairs of things that go together (e.g. finds the right lids for each of several boxes).......___
5. Sorts objects into 2 sets by kind.........................___
   shape........................___
   colour.......................___
   size.........................___
6. Sorts objects into 3 sets by kind.........................___
   shape........................___
   colour.......................___
   size.........................___
7. Classifies pictures or objects by a common function (e.g. pictures of transport/food or of clothes/animals).....___
8. Places objects in order according to size..................___
   height.................___
   thickness..............___
9. Tells which of two sets has more and which has less objects when the difference between them is: at least 4 objects......___
   at least 2 objects......___
   only 1 object.......___
10. Places cards in order of number of objects pictured ....___
11. Counts up to 10 objects.....................................___
12. Reads written symbols for numbers up to 10.................___
13. Adds numbers, total less than 10 (using counters)...........___
14. Records numbers up to 10 symbolically by drawing a circle for each object........................___
15. Subtracts numbers less than 10 (using counters).............___
16. Counts to 20..___
17. Reads written symbols up to 20..............................___
18. Adds numbers totalling less than 20 (using counters)........___
19. Subtracts numbers less than 20 (using counters).............___
20. Counts out correct number of beans up to 100, on reading written figure, putting complete 10s of beans in matchboxes.___
21. Records numbers up to 100 symbolically, drawing squares for 10s and circles for units.......___

22. Knows names, and writes figures, of numbers up to 100.......___
23. Does written addition up to 100 (using counters
and containers).___
24 Does written subtraction up to 100
(using counters and containers)....___
25. Multiplies by 2,5,10 using pegboard and pegs................___
26. Does any multiplication sum that fits on pegboard with pegs.___
27. Does division using pegboard and pegs.......................___
28 Knows meaning of halves and quarters........................___
29. Does addition and subtraction on paper without counters.....___
30. Multiplies by 2,5,10 without pegboard.......................___

13. NUMBER RELATED SKILLS

** Measurements and distance

1. Measures class room objects against one another (e.g.
table is __ pencil lengths, book is __ crayon lengths)..___
2. Measures common objects using ruler or tape measure.........___
3. Knows meaning of commonly used measurement units
inches/feet or cm./metres)...___
4. Has some understanding of distance, knowing approximately
how long it takes to walk/cycle/ride one mile/kilometre....___
5. Has some idea of comparative distances and how long it
takes to reach nearby towns/villages/places of interest....___

** Money

1. Knows value of coins and notes ....___
2. Adds money (whole numbers of rupees) ....___
3. Gives change (whole numbers of rupees)......................___
4. Makes reasonable estimate of costs of different goods e.g.
knows how much money to give when buying cup of tea or how
much to take when going to buy shoes.......................___
5. Adds and subtracts money using paisas (small change)........___

** Time

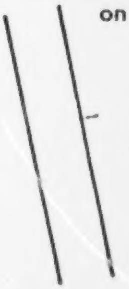
1. Knows whether it is morning, afternoon or night,
and what activities take place at these times..............___
2. Recites days of week..___
3. Knows what day is today, was yesterday and will be tomorrow.___
4. Tells hours on clock..___
5. Tells time to quarter and half hours........................___

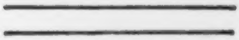
6. Tells time in minutes.....................................___
7. Sets clock to given time..................................___
8. Tells on clock when 5 or 10 minutes have passed ....___
9. Times activities taking up to 15 minutes using clock/watch..___
10. Knows months of year......................................___
11. Knows own age...___
12. Uses calendar to find out date: day and month..............___
13. Knows what the time will be after 2 hours..................___
14. Knows what time was 2 hours ago............................___
15. Makes estimate of passage of time (eg half an hour ago).....___

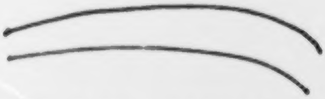
14. PERCEPTUAL AND READING RELATED SKILLS

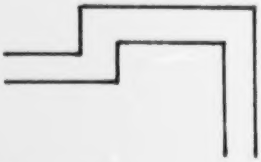
** Hand eye coordination

1. Can draw line between two lines drawn by teacher:
on blackboard, or large card 5 cm (2") apart ....___
" " 1$^1/_2$ cm ($^1/_2$ inch) apart...___
in exercise book " " " " " .....___
" " " 4 mm (3/8" apart) .....___

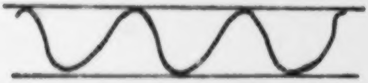


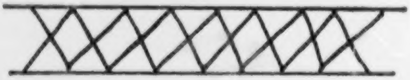






2. Can draw over simple patterns in exercise book : ....___





** Picture/shape recognition and matching

1. Recognises pictures of familiar objects ....___
2. Does simple inset puzzles recognising where to put pieces from their shape (not just using trial and error) ....___
3. Does jigsaw puzzles ....___
4. Does straight sided puzzles made from cut up photographs of common objects (e.g. face, body, animals,)...............___
5. Matches clear pictures of familiar objects ....___

6. Matches shapes (coloured on cards)..........................___
7. Matches cut-out wooden shapes to shapes drawn on card ......___
8. Matches shapes coloured on card to those drawn with
thick lines but not coloured ....___
9. Matches shapes drawn on card with thin line (pen or pencil).___
10. Matches pictures noticing small difference of detail........___
11. Explains small differences of detail.........................___
12. Copies matchstick patterns..................................___
13. Traces over shapes ....___
14. Copies (draws) shapes ....___

** Colour recognition

1. Sorts objects by colour (two colours) ....___
2. Sorts objects by colour (4 colours) ....___
3. Names 1 colour correctly ....___
4. " 2 colours " ....___
5. " 4 " " ....___
6. " 8 " " ....___

### ** Patterns/Sequencing Completion

1. Continues patterns of alternating different
coloured pegs in pegboard e.g. red, blue, red, blue.......___
2. Continues more complicated pattern of pegs ....___
3. Continues pattern drawn on paper ....___
4. Completes unfinished drawing of picture......................___
5. Copies a sequence of pictures or shapes ....___
6. Tells story with main events in correct order ....___
7. Places sequence of pictures in correct order to tell story..___
8. Puts pictures in correct order to show an activity from
ordinary life (e.g. making a meal, building a house,
a tree growing)....___

### ** Left/Right Discrimination

1. Imitates actions using left or right hand/arm/leg,
when standing behind demonstrator ....___
2. Uses correct hand to shake hands, eat, etc ....___
3. Knows which is own right (and left) hand ....___
4. Knows which is own right (and left) foot, eye, ear etc......___
5. Imitates actions using left/right arm leg
when facing demonstrator ....___

6. Knows which is other person's right side ....___
7. Knows whether something is on 'my' right (left) or 'your' right (left)...___
8. Turns right or left on command without hesitation ....___
9. Understands and follows street directions involving turning right or left ....___

### ** Sound perception

1. Identifies familiar sounds when recorded on tape ....___
2. Identifies which of a set of hidden familiar musical instruments makes a sound..___
3. Copies a simple rhythm by clapping ....___
4. Copies a more complicated rhythm ....___
5. Names words which begin with certain sounds ....___

### ** Memory

(For items 1-8, show objects/pictures to pupil for 10 seconds, then hide/turn over, and pupil is required to do the task)

1. Copies from memory, drawing of basic shape ....___
2. Copies from memory, matchstick shape ....___
3. Identifies picture on 2 cards that have been turned over....___
4. " " " 5 " " " " " " ....___
5. " " " 8 " " " " " " ....___
6. Names 3 objects on tray after it has been taken away ....___
7. Names 5 " " " " " " " " " ....___
8. Names 8 " " " " " " " " " ....___
9. Remembers some words of simple poem/children's rhyme ....___
10. Remembers complete poem/rhyme ....___

### ** Reading

1. Recognises own written name ....___
2. Recognises written names of 3 other classfellows ....___
3. Reads numbers 1-10 ....___
4. Recognises 3 words ______________ ______________

   ______________ ....___

5. Recognises 6 words ______________ ______________

___ ___

___ ___ .... ___

6. Recognises 20 words .... ___

7. Begins reading book .... ___

** Writing

1. Writes own name over dots .... ___
2. Copies own name .... ___
3. Writes own name unaided .... ___
4. Writes numbers over dots .... ___
5. Copies numbers .... ___
6. Writes numbers unaided .... ___
7. Begins to write words from reading book .... ___

15. COOKING

1. Spreads jam on bread .... ___
2. Mixes cold drink .... ___
3. Shells peas .... ___
4. Makes banana sandwich .... ___
5. Cuts tomatoes .... ___
6. Cuts carrots or apples .... ___
7. Cuts onions .... ___
8. Makes tomato and onion salad unaided .... ___
9. Peels and cleans various fruit .... ___
10. Makes fruit salad unaided .... ___
11. Cleans rice and lentils .... ___
12. Identifies different vegetables and pulses and knows how they are prepared ..... ___
13. Places pot on heater .... ___
14. Makes tea (except for lighting gas/heater) .... ___
15. Fries tomatoes and onions .... ___
16. Makes peas pulao .... ___
17. Cuts power supply when food is ready or if problem arise ... ___
19. Makes omelette .... ___
20. Makes custard .... ___
21. Cooks lentils .... ___
22. Fries bread .... ___

22. Lights match safely......................................___
23 Lights gas ring safely....................................___
24. Prepares and cooks minced meat...........................___
23. Prepares and cooks liver.................................___
24. Makes curry..___
22. Makes cutlet/kebab.......................................___
23. Lights kerosine stove (or any other heater used at home)....___

16 SEWING

1. Sews on card with prepared holes using very big needle......___
2. Sews simple running stitch using large needle,
   following line drawn on cloth..............................___
3. Sews simple running stitch neatly, using normal size needle.___
4. Sews on buttons..___
5. Sews on beads..___
6. Sews on sequins..___
7. Sews applique..___
8. Threads large needle.......................................___
9. Sews a seam..___
10. Sews a hem..___
11. Does simple embroidery stitches...........................___
12. Threads normal needle.....................................___
13. Sews buttonhole...___
14. Stitches simple seam using sewing machine.................___

17. HOUSEHOLD TASKS

1. Wipes table clean..___
2. Sweeps floor...___
3. Washes unbreakable cups and plates.........................___
4. Dusts furniture ....___
5. Washes floor with water and cloth or mop...................___
6. Makes up bed / tidies away sleeping area...................___
7. Cleans cooking pans..___
8. Wipes cooker after use ....___
9. Prepares area for meals (setting table or arranging ....___
   eating area on floor, putting out plates and utensils) ...___
10. Dusts ornaments safely....................................___
11. Cleans windows ....___
12 Washes light clothes ....___
13. Hangs up washing to dry ....___

14. Folds clothes neatly and puts them away ....___
15. Washes heavier clothes, towels ....___
16. Washes breakable dishes ....___
17. Irons simple objects (handkerchief or scarf) ....___
18. Does more difficult ironing ....___

18. CARPENTRY

1. Hammers in big-headed nail already partly nailed into wood..___
2. Hammers big-headed nails into soft wood ....___
3. Rubs with sandpaper ....___
4. Rubs wood smooth with sandpaper ....___
5. Makes cuts with saw ....___
6. Cuts through small (1" square) piece of soft wood with saw..___
7. Hammers ordinary nails into wood ....___
8. Fixes a piece of cloth to wood by nailing ....___
9. Removes nail sticking out from piece of wood ....___
10. Glues two pieces of wood together ....___
11. Saws ordinary wood along a line ....___
12. Makes a simple wooden toy e.g. a table or car ....___
13. Measures wood before cuttinhg ....___
14. Makes a simple wooden box ....___
15. Cuts plywood with hacksaw ....___

19. GARDENING

1. Waters flowers in outdoor flower bed ....___
2. Waters flowers in flower-pot without spilling water ....___
3. Plants seeds ....___
4. Digs with trowel to prepare flower bed ....___
5. Removes weeds (telling grass/weeds from plants).............___
6. Takes care not to trample other plants while working........___
7. Flattens soil around plants ....___
8. Ties plant to stick for support.............................___
9. Does heavy digging with fork or spade.......................___
10. Transfers plant from pot to flower bed ....___
11. Cuts grass with sickle.....................................___
12. Knows names and recognises different functions of tools ..___
13. Cleans and puts away tools after use ....___
14. Informs teacher if tool needs oiling or repair ....___
15. Oils tools and does simple repairs as needed ....___

20 HANDICRAFTS

** Work with Wool

-- Table mats (using wooden frame with nails)
1. Weaves wool around nails, following given pattern ....___
2. Weaves wool around nails, starting wihtout help ....___
3. Completes table mat, sewing cross stitch ....___

-- Knitting
1. Knits a plain stitch ....___
2. Knits a row of plain stitches ....___
3. Knits a row of plain stitches without mistake ....___
4. Knits several rows in plain stitching ....___
5. Notices and asks help if stitch has been dropped or made....___
6. Picks up a dropped stitch ....___
7. 'Casts on'..___
8. 'Casts off'...___
9. Knits a square in plain stitches ....___
10. Knits 'purl' stitches......................................___
11. Knits alternate plain and purl stitches ....___
12. Knits alternating rows of plain and purl stitches ....___

** Work with Paper and Card

1. Cuts paper neatly along line ....___
2. Folds paper neatly along line ....___
3. Glues paper neatly ....___
4. Makes paper bag ....,,.......................___
5. Makes paper envelope ....___
6. Cuts and folds light cardboard neatly along line ....___
7. Makes cardboard box ....___
8. Makes decorated hand fan ....___

**Flower making

1. Cuts, folds and glues paper neatly..........................___
2. Makes simple paper flowers ....___
3. Cuts cloth neatly ....___
4. Makes simple cloth flowers ....___
5. Loops and twists wire ....___
6. Makes 'glass' flowers ....___

7. Attaches paper/cloth to wire ....___
8. Makes paper or cloth flowers reinforced with wire ....___

Using Molds

-- Plaster of Paris
1. Fills mold with plaster of Paris mixture ....___
2. Mixes plaster of Paris to correct thickness.. ....___
3. Paints/decorates model ....___
4. Removes mold carefully ....___
5. Knows when model is ready to be removed from mold ....___

-- Wax Candles using mold
6. Places wick correctly ....___
7. Removes candle from mold ....___
8. Safely handles pot of hot wax ....___
9. Pours hot wax safely..___
10. Heats wax safely, and knows when it is ready ....___

APPENDIX IV

GENETICS AND HEREDITY

Our bodies, like the bodies of all living creatures, are made up of millions of very small *cells* of different kinds. They all grow from a first cell that is formed by the joining of special cells from the parents. A cell is much too small to be seen by the human eye. It can be seen through a special microscope.

In every cell there is some small, thread-like material called *'chromosomes'*. Chromosomes contain the 'plan' for each person - from the colour of her eyes and shape of her nose to the way all the different parts of her body work.

Normally, people have 46 chromosomes in each cell. Of these 46, 23 come from the father and 23 from the mother, to make up the chromosomes of the first cell. These are all copied and go into each new cell as it is formed by a previous cell doubling itself.

In some conditions, the person has an extra chromosome in each cell. The most common condition of this sort is Down's syndrome (mongolism). The extra chromosome results in the typical physical features as well as mental retardation in Down's syndrome. Some conditions are caused by only an extra part of a chromosome, or by a missing piece.

Small sections of chromosomes are called *'genes'*. Sometimes a gene is copied incorrectly. If the copy is not exact, the individual will be different from his parents. Sometimes the incorrect copying of a gene results in forming an abnormal gene that causes mental retardation.

When mental retardation is caused by an abnormal gene, there may be other abnormal features, such as too many fingers or not enough toes, or being unusually short or tall, or having unusual amount of hair on the body.

Some abnormal genes cause mental retardation whenever they are present. Others cause mental retardation only if the same abnormal gene is inherited from both parents. In this case the parents will not know that they have this abnormal gene, since they themselves have no ill effects from it.

When the two parents are not related by family, there is only a small chance that they will *both* have the same abnormal gene. But *if the parents are cousins*, the chance is much higher. Genes are passed on equally by both parents. Genetically the relationship is equally close between children of two brothers, two sisters or a brother and sister.

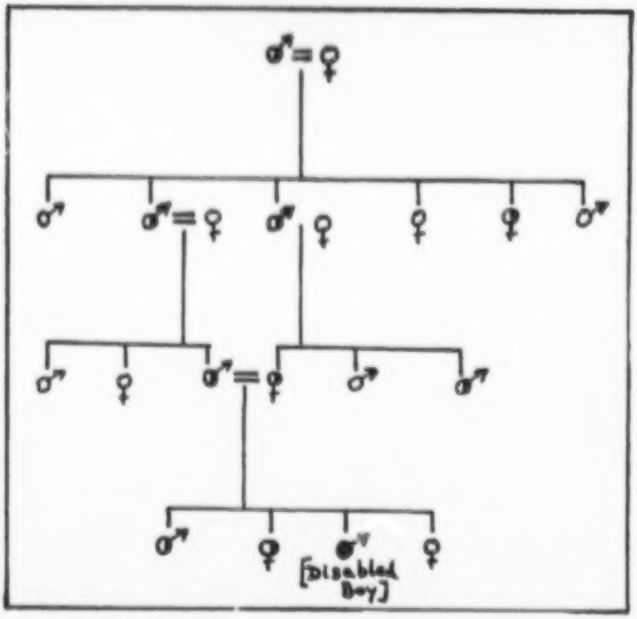
An example:

Person in whom an abnormal gene arises (undetected) for no known reason.

Children are all normal but some have inherited the abnormal gene (still undetected). All their marriages are made with people who have no abnormal genes.

Grandchildren are all normal, but some have abnormal genes. Two of these (cousins) marry.

Some of their children have no abnormal genes, some have only one (and so are normal) but some have two and are born with disability.



KEY :

♂ Male and ♀ Female : with normal genes

♂ Male and ♀ Female : with single abnormal gene

♂ Male and ♀ Female : with two identical abnormal genes, causing disability

= marriage

children

There are some conditions where the abnormal gene causes a disability only in boys. In these cases there will often be several disabled boys and men in the extended family.

Genetic abnormalities happen when copying of chromosomes from parents is not exact. We do not know why some people are affected and not others. Radiation and certain chemicals increase the risk. Once an abnormal gene is present, it will be passed to half the children, on average.

Extra chromosomes arise when the cell divides incorrectly, 45 chromosomes going into one cell and 47 into the other. This may occur in the first cell division, or the extra chromosome may have come in the special cell from either parent. If a person has an extra chromosome or other chromosome abnormality it will be passed to half his or her children, on average.

CEREBRAL PALSY

Cerebral Palsy (C.P.) is a physically disabling condition that arises from damage to a part of the brain which controls movement and balance.

There are several different types of C.P.. It can affect different parts of the body, depending on the location and extent of brain damage. Cerebral palsy affects people in varying degrees, from mild to severe. Many people with C.P. have average or above-average intelligence, but some are mentally retarded. Some have problems with vision, with hearing or with epilepsy. If the mouth muscles are affected, the person with C.P. may find it hard to eat and speak. Some people with C.P., who have normal sight and intelligence, have perceptual problems, i.e. find it hard to recognise pictures or shapes, or to tell 'up' and 'down' or 'left' and 'right'.

The degree of C.P. varies from very slight (the person moves almost normally but is a little clumsy) through to very severe (the person cannot control his movements or posture, being unable to walk, talk or use hands).

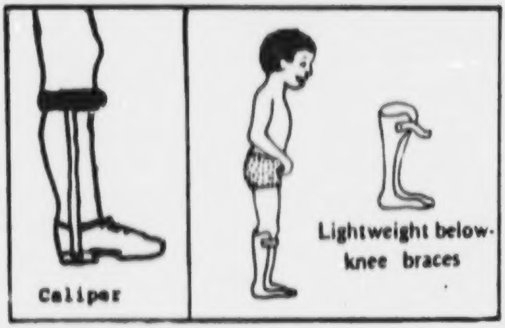
1) TYPES OF CEREBRAL PALSY

a) Spastic C.P. The person with spastic C.P. has a stiff body with tight muscles. The stiffness is increased by attempts to move, or by excitement, fear or anxiety. Muscles in the human body are arranged in pairs, and each pair of muscles works in partnership. The spastic person has some muscles that work too hard, not allowing the partner muscles to balance and correct them. (Those muscles work too hard because they receive a wrong message from the brain: so surgical operations on the muscles do not help).

The spastic person needs to learn how to lie, sit, stand etc.. in positions that help to limit the spasticity, and to allow the muscles to work in a more normal, balanced way. If possible, a physiotherapist should be consulted about this.

Spastic cerebral palsy may be further divided into *Hemiplegia, Diplegia, Quadriplegia, Monoplegia.*

Hemiplegia: one side of the body is affected. People with Hemiplegic spasticity can usually walk. A physiotherapist will recommend arm and leg exercises. Sometimes a hemiplegic child does not put the foot of her affected side on the ground properly, so she walks on her toes. This is a result of a problem affecting the *whole leg*: not just the foot and the ankle. Exercises should be done to correct this, especially those for stretching hip or knee. A raised shoe should not be given - that would make toe walking worse - but removing the heel may help. (Children with one leg shorter than the other, e.g. as a result of polio, will be helped by raised shoes.) Wearing a plastic splint helps some children.



Sometimes an older child (more than 12 years) may benefit from an operation. A small child should not have one as exercises should correct the condition and an operation would have to be repeated as the child grows older.

People with spastic hemiplegia often find that their affected side copies a movement made by the normal side. If they kick with their good leg, the other leg jerks and they fall over. If they open their good hand they may drop something held in their affected hand. Sometimes the sense of touch is less in the affected side. Spastic hemiplegic people should be encouraged from an early age to use the affected hand, or to do activities needing both hands, as the affected side will develop more problems if not used. Many hemiplegic children are of normal intelligence and should be able to attend normal school if care is taken to assist with their mobility.

Diplegia: The whole body is affected, legs more so than arms. People with mild diplegia tend to walk on tiptoe. Those with severe diplegia hold their legs stiffly, straight at the knees and crossing at the ankles. A physiotherapist may advise caliper, plastic splints or plaster-cast support. A standing frame may help the child to learn to stand, as well as helping to stop deformities. Walking frames may help in learning to walk. From an early age, a child with diplegia should be put to lie over a cylinder roll (e.g. thin mattresses rolled up, or cylinder of heavy sponge rubber), which will stretch his hips and enable him to use his hands (See page 235).

Quadriplegia: The whole body is affected, often the arms more severely than legs. Many people with quadriplegia have severe speech problems. (A neurologist may diagnose *double or bilateral hemiplegia* - for practical purposes it is the same as quadriplegia).

Monoplegia means only one limb affected, and paraplegia means both legs affected but nothing else affected - these are rare in cerebral palsy.

b) Athetoid C.P. The person with athetoid C.P. makes strange purposeless movements without her control. When the child tries to move, or even to solve a problem by mental effort, his whole body moves. Any excitement increases these movements. He may become still only when asleep. If an athetoid person tries to use her hands, her head may turn, her face twists, mouth opens, arms stretch out, legs kick and body wriggles. The athetoid person's affected muscles are sometimes stiff and sometimes loose and floppy. Most athetoid persons are affected in all body parts, including face and tongue. Some are affected only in hands and feet, others may have one side affected (hemiplegic). Mildly athetoid people are clumsy and awkward in moving and may have a speech problem; severely affected people cannot walk, speak or use their hands.

People with athetoid C.P. are often of normal intelligence. Sometimes severely athetoid people are very intelligent, capable of university education if they have some means of communication. Many athetoid people are partly deaf, usually a type of deafness affecting 'high frequency' sounds so that they hear some sounds but not others. They can normally hear vowel sounds, but not consonants such as 's', 't', 'k', 'kh', 'g'. Special hearing aids may help, if available. For some, typing on a keyboard is easier to learn than writing by hand. Some athetoid persons have better control of feet than hands, and may learn to write, type, paint etc, with their feet.

Though they may have normal intelligence, severely athetoid children are often found in schools for mentally retarded children because their physical dependence makes it hard for them to function in the normal school without an attendant. The special teacher who has an intelligent athetoid child in her class must use her imagination to exercise that pupil's mind to the full extent. A physiotherapist may advise on exercises to help the child learn to control his movements.

Through their own intelligence and determination, children with athetoid C.P. often find their own ways of overcoming problems. They should, of course, be encouraged to do so.

c) Ataxic C.P. Balance is poor, legs may tremble and arms move clumsily, often misjudging the distance of an object to be picked up, over- or under- reaching. Some people with ataxic C.P. have eye problems, especially control of eye movements. Unlike the athetoid child, the ataxic child can stay still when he is not trying to do anything.

d) Flaccid C.P. Children with flaccid C.P. start with soft weak muscles. Flaccid children usually become spastic, athetoid or ataxic by school age, but conditions other than C.P. may result in flaccidity, and require similar treatment. It is important to encourage the flaccid child or infant to use, or become aware of, her hands. If she does not move them herself, move them for her, brush her hands against different objects so that she experiences different feelings of touch. Place her in different positions, sometimes sitting, sometimes lying over a roll.

Some children have a combination of different types of C.P. - for example, a chiid may be ataxic with some spasticity.

2) PHYSICAL DEVELOPMENT

If possible a physiotherapist should be consulted regularly about each child with C.P. Treatment sessions alone are less effective than *continuous correct handling, positioning and ways of moving the child.* To ensure this, there must be good links between physiotherapist, school and home. (Families may sometimes pay heavily for 'Electro-therapy' or 'shocks', which are no use to children with C.P., and may even be harmful). There are two main elements in the physical treatment of the C.P. child:

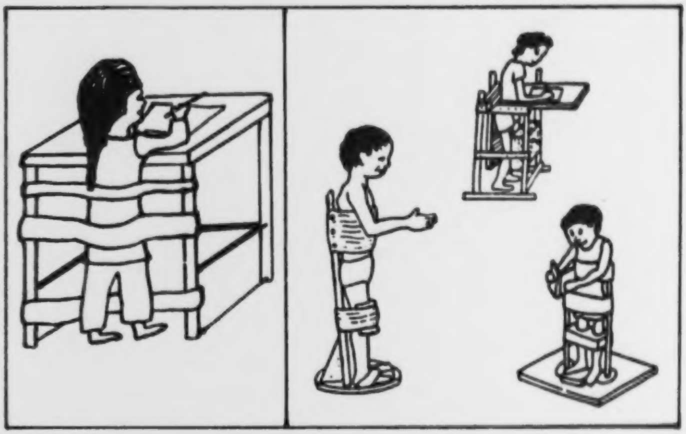
a) Developmental training.
b) Stopping or removing deformities.

a) *Developmental training.* This means enabling the child to follow a sequence of development as near normal as possible. The child will be taught to follow the normal patterns of motor (movement) development, perhaps with some changes, and should learn the necessary movements and control of body position. For example a child who does not move about on the floor must first learn to do so before she will learn to walk. She may start by crawling or shuffling on her bottom. Many childen find rolling easiest, and then go on to crawling or shuffling. (Not all normal children crawl; some physiotherapists think crawling is an essential stage, but most do not.)

A normal child develops control of his head before his back; then his hips and lastly his legs. A child must learn control of his head movements before trying to learn to walk. Head control is also needed to develop speech, feeding, eye-hand coordination, use of hands. The normal baby learns to use his arms before his legs. A child with cerebral palsy who cannot walk may start to progress in walking if the teacher works on teaching him to reach with his arms (reaching out for toys, pulling a hat off another child's head etc.), to push (pushing things he does not want away from him) and to pull (pulling on the teacher's hand, or pulling himself up to standing).

Severely athetoid children kick their legs rapidly up and down if held in a standing position. It is not a walking movement. A similar reflex action is made by normal babies under 6 weeks old. The athetoid child first has to learn to control his legs enough to keep them still in a standing position, and then to bear some weight, before he learns to move them again in a true walking movement.

Standing and weight-bearing with feet and legs in a good position is helpful for most children with C.P. A standing frame will hold children in the correct position, and enable them to experience what a correct standing position feels like.



Adaptation of the frame will be made for each child. A child with good back control may not need the chest support. Some children may need a block to stop their feet coming too far forward. For some children, a piece of strong cloth is enough support at the knees, while others need a larger more rigid support (a padded block of wood with cut-outs for the knees or stiff foam rubber). The child may work at a table at chest height while standing in the frame. If the child has not got full head control, she should stand only for a few minutes, and be encouraged to keep her head up during this time.

b) Control of deformities. Many children who have C.P., especially spastic C.P., will have developed some deformity by the time they reach school age, unless they have already had physiotherapy. The tight spastic muscle pulls the joint into an abnormal position. Then the other muscle, unable to balance its tight partner, becomes weaker until the joint is fixed in an abnormal position. When there are deformities, treatment may include massage, heat or ice, special exercises, plaster casts. Sometimes an operation may help if the child is older (over 12 years) and if other ways to remove the deformity have been tried but did not work. Most deformities can be prevented by exercises and correct positioning from an early age. The child should be taught to stand or lie in correctly balanced positions, regularly changing position (or being moved if she cannot move herself).

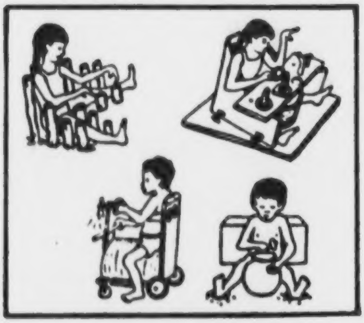
Some of the commonest deformities are "flexion contractures" (tightening) of the hips or knees or shortening of the tendon at the back of the heel. To stop these, especially in spastic children, the child should be encouraged from as early an age as possible to lie and play on his front, perhaps over a roll or on a wedge (see page 235). He should also use whatever support he needs to stand with feet flat on the ground.

** An eye specialist should check C.P. children who have vision problems. Spectacles or other treatment may be required. Children with C.P. who have hearing problems should be examined by an E.N.T. specialist. Those with speech or eating difficulties will benefit from the attention of a speech therapist.

3) SITTING

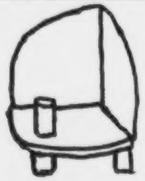
If a pupil with C.P. can sit in a normal chair at an ordinary table, she should do so. The chair should be at the correct height so that she can sit with her feet flat on the floor. To avoid muscle spasms, the table should be at waist level or a little higher for spastic and ataxic children, and a little lower for athetoid children. To help the C.P. child to sit at the same table with other pupils, a large wooden box of the correct height may be placed under her feet, rather than seating her in a separate lower chair or table.

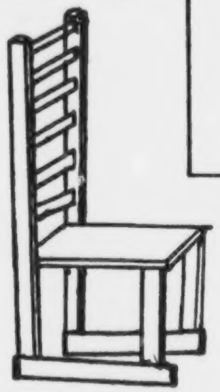
From time to time the child should be given work that involves sitting or lying on the floor or standing up, in order to change position. A low stool, or piece of foam about 4" (10cm) high, on which the child sits with her legs straight out in front of her, may be easier for the child than sitting on the floor. This stops the child sitting in a "W" shape: the "W" should be discouraged where possible, as it tends to produce spasticity and deformities. If a child has a corner chair without legs, it may be held up on bricks to give some height.

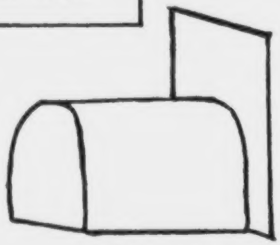


If a child cannot sit in a normal chair, a special chair may help. Many different type of chairs can be made to meet the needs of individual children:

The 'Corner Chair' is suitable for children who are unable to use an ordinary chair as they do not have enough control of their backs. The child with poor neck control can also use a corner chair, if the back of the chair comes up high. (For the child who has good neck control, the corner chair can have a lower back so that the child gets exercise by holding herself up.) The corner chair can be made without legs, for sitting on the floor, and can then also be fixed onto a normal chair, but for some children it is best to make it with legs.


Corner chair

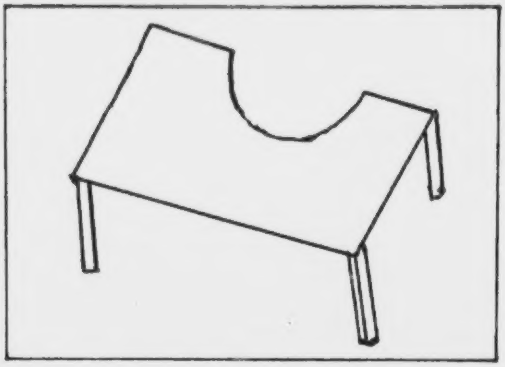

Peto chair


Roller chair

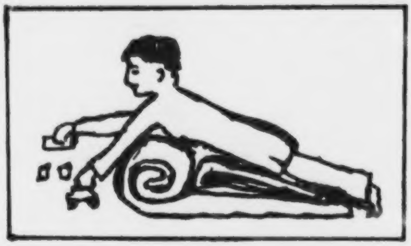
Some children (and adults) find it hard to bend at the hips or the legs. Those who cannot sit in ordinary chairs because of this problem should be able to sit on a Roller chair. The height should allow both feet to be flat on the floor. It is *not* suitable for children who are able to sit in other chairs.

The 'Ladder back Chair' or 'Peto' chair is specially designed to be used for several purposes. The child may push his arms through the slots at the back for balance, or use them as a ladder to pull himself up from sitting to standing, or use the chair as a walking aid by pushing it in front of him.

A cut out table may be useful for a pupil's work place if she cannot sit securely at an ordinary table.



The child who cannot sit in an ordinary chair should not be left in a special chair for more than 30 minutes at a time. He should sometimes be placed on a wedge, or over a roll shaped cushion, where he will be able to use his hands and see what he is doing. This also suits the child who cannot yet sit at all. Athetoid children make less unintended movements in this position. The child should also sometimes work in a standing position, in a standing frame placed by a table.



A few children are so severely spastic that they cannot sit in any of these chairs because their body arches backwards. Such a child needs to 'break the pattern' of the spasticity, by being bent forward: the problem is that pushing their back or shoulders only increases the child's backward push. Lying in a hammock is a suitable position, or on one side on the floor, or bent over a barrel, large piece of foam or other large curved surface where he can reach down and use his hands.

The hemiplegic child has no problem about sitting, but care should be taken that he sits in such a way as to encourage him to use his affected hand. When not in use, the hand should rest on the table.

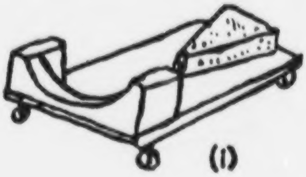
4) SPECIAL NEEDS

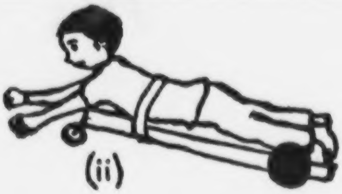
Special needs of a person with cerebral palsy are to have:
- (a) some means of moving about;
- (b) independence in feeding, washing and toilet;
- (c) a means of communication, whether speech, gesture, writing, typing or symbol language.

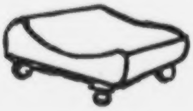
(a) Movement

This is the field of the physiotherapist. If available, she will advise a special program for each child.

If a child cannot walk he should be encouraged to move along the ground by rolling, crawling or shuffling on the bottom, whichever is easier for him. Physiotherapists say that "Bunny hopping," where the child crouches and bounces forward making small jumps or sliding both feet together, should be avoided because it encourages deformities and prevents the child from learning to move one leg after the other. He should instead be encouraged to crawl or shuffle on his bottom. At the same time he can start learning to stand upright, use a balance board (below) to practise balancing. When he can stand upright he can start learning to walk - pushing a walking frame or chair if necessary.


(i)


(ii)


(iii)

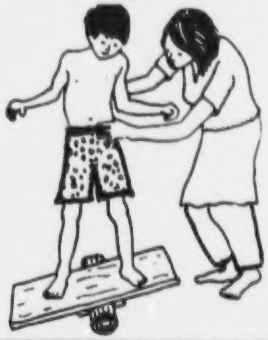
The child who cannot easily move himself about may be able to do so on a trolley, enabling him to explore and thus to keep up his interest in moving about.

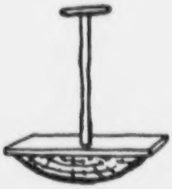
A child who cannot hold his head up needs a shoulder support as in (i), but it is not needed by other children.

Some children need to be secured by a belt (ii). Shoulder supports and leg separators should either be made of foam rubber or else be well padded to prevent discomfort to the child. Castors or wheels should be fitted so that the child can move in any direction.

Item (iii) is suitable for children who can sit and whose legs are weak but not spastic - in order to exercise the legs; or for a child who can lie across it when starting to crawl.

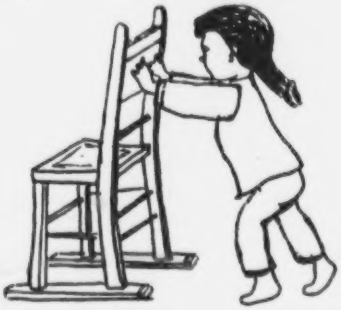
Before walking the child will learn to stand (the athetoid to stand still). The child may also benefit by work with a balance board, which can be tilted from side to side. At first he should sit on it while the teacher tilts it. Then he may stand, with his hands held by the teacher, then he stands alone while the teacher rocks it. He may also then work at rocking the board himself by shifting his balance.

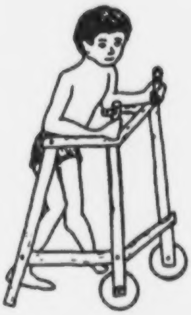




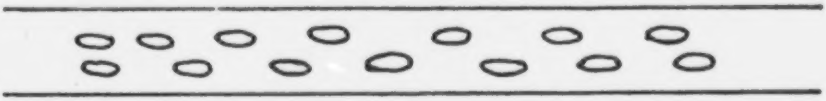
The child who begins to walk may begin by holding the teacher's hands. He may then go on to holding a stick while the teacher also holds it.

He may push a chair as a walker if no specially designed walker is available.





The child who can walk but is poorly coordinated may be helped to control her movements by practising walking along a line painted across the floor or by stepping on 'footmarks' painted there.



Children (especially with athetoid C.P.) find it helpful to have full instructions and to be shown a movement before they do it. If they can speak, they may recite the directions every time they do the movement, until it is very familiar. Example:

Standing up (from sitting): "Put your feet on the ground,
Bring your nose over your toes,
Lift your bottom; and Stand Up !"

It may also help to count aloud the number of actions, or count while doing an action slowly, e.g counting slowly: "One, Two, Three, Four, Five" while lifting hands above the head.

(b) Skills for personal independence

- *Feeding*

As with all activities with C.P. children, it is important to take plenty of time in feeding. NEVER HURRY !

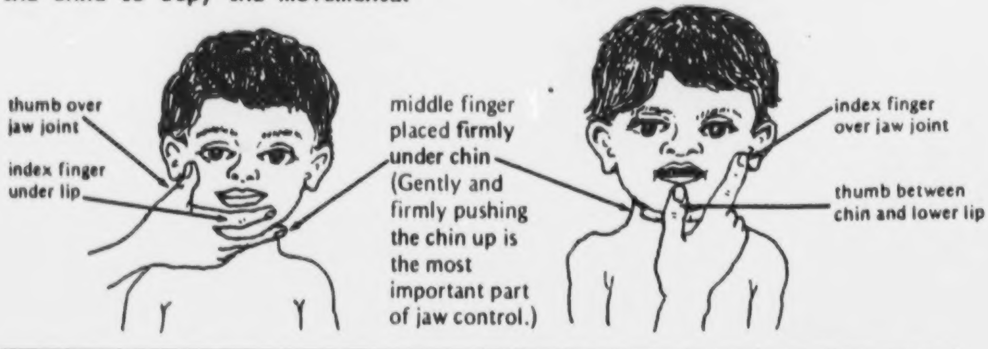
Children with physical disabilities, especially those with C.P., should always sit upright to take food and to drink. The back and neck should be straight, or bent *forward* at the shoulders. If the child lies down, it is harder for her to swallow, and she risks choking. As well as making it harder to eat, there is a danger of food getting into the lungs and causing infections. Support the child from the back and shoulders, but not by putting a hand on the back of the head – that would cause the child to push his head back even more.

Children with C.P. may find it hard to control their mouth movements, and to chew and swallow. They may need help to learn to control their lip and tongue and jaw movements. Try to encourage the child to take food off the spoon by moving her lips: do not scrape the food off against the lips.

When a child is being fed, food should be brought to the child's mouth from the front, so she can easily watch it coming, not from the side or from above (which would make her tilt her head back).

NEVER tilt back a child's head to pour a drink into his mouth. He will not be able to control his swallowing. He may drink more easily if his head is a little forward. If necessary, a piece should be cut from a plastic cup, leaving room for the nose, so that he can drink with his head slightly forward. Some children can give themselves a drink if they have a cup with two handles. Athetoid children may manage a large straw – a piece of plastic tubing, 3/8" or 1 cm across, is suitable.

Chewing is a good exercise to improve mouth control, but some children need help to know how to chew. To teach the child, place food (e.g. a piece of bread) between the teeth at the side of the mouth, support the jaw with a finger under the chin to gently press upwards on the jaw with another finger on the jaw joint. The teacher should not move the child's jaw up and down, but if she pretends to be chewing herself, it may help the child to copy the movements.


thumb over jaw joint
index finger under lip
middle finger placed firmly under chin (Gently and firmly pushing the chin up is the most important part of jaw control.)
index finger over jaw joint
thumb between chin and lower lip

Do not give chewing gum: if it gets in the child's windpipe, she may choke.

Some children have an uncontrolled biting reflex when anything is brought into the mouth. This should improve if the child learns to chew. If possible, use a wooden or horn spoon in feeding such children: metal may cause pain and damage the teeth; plastic may break when bitten hard. Take only a little food on the spoon at a time, and put it to the side of the tongue or the front of the mouth, whichever is easier. If the head and neck are correctly positioned, the bite reflex should be easier to control, but it may be necessary to hold the child's chin, using jaw control as above.

Other children have a strong movement of the tongue pushing food out. Holding the child's jaw may help control this, as when teaching a child to chew. When the tongue starts to come forward, place the spoon on the front of the tongue and gently push downwards and backward into the mouth. It may also help to signal to the child when the problem occurs. The teacher or person feeding him may talk or sing steadily while he is eating - but whenever his tongue pushes food out the talking or singing stops for half a minute. This sort of signal helps some children to learn to control the movement. It is important that the child learns to control it as soon as possible, otherwise it will get worse as he gets older. A child with this problem should not be given drinks from a bottle, or from a cup with a spout, as sucking will make the problem worse.

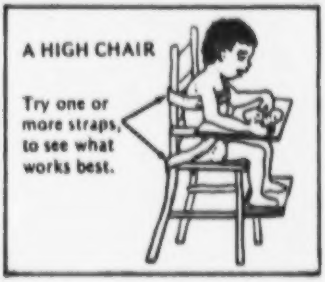
A bite reflex, or pushing with the tongue, may be helped by a program to make the mouth less sensitive to touch. Start by stroking the outside of the cheeks firmly but gently, moving towards the lips. Stroke down from the side of the nose to the mouth. When touch on the outside no longer brings a reflex response from the child, put a finger in the mouth and rub the gum. Run a finger along the gum. If the child's problem is pushing the tongue out, "play" with it, and encourage the child to put his own fingers in his mouth. (But if there is a bite reflex this should not be done, as fingers or tongue may get bitten).

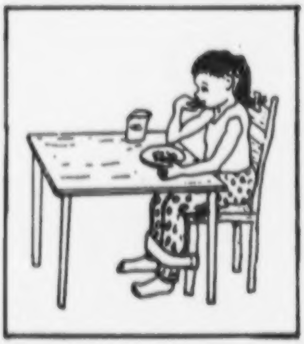
If a pupil's mouth is very floppy, try rubbing ice around it. This will tighten it up for a few minutes, while she eats or does speech exercises.

If the child *dribbles* a lot, the problem is in swallowing, not lip control. Telling the child to swallow will not usually help. Press a finger firmly on the top lip to help stimulate swallowing. Do this throughout the day, as necessary.

If a cerebral palsied child is used to taking only liquid foods, she should get used to solids little by little. First she may try soft foods, then slightly harder or lumpier foods. Some children with C.P. - usually athetoids - prefer to eat pieces of dry, crunchy food. Some children take food from the spoon more easily if it comes tip first. Others, especially those with tightly spastic mouths, need the spoon to approach from the side.

When a child with C.P. starts to feed himself, position is again very important. He should sit upright, securely, so that he is not afraid of falling. His feet should be flat on the floor. If needed, he may be strapped into the chair, but should be released straight after the meal. Some children find it easier if there is a bar fixed to the table, which they can hold with one hand while eating with the other.


A HIGH CHAIR
Try one or more straps, to see what works best.



The child may be helped if the plate is on a surface that is not slippery, or in a holder to prevent slipping. It helps some children if a pad is placed round the handle of the spoon making it easier to grip.

Teaching a disabled child to feed herself is likely to be messy, especially with C.P. children. However with practice the child will improve, and the mess will be less. Being allowed to make a mess with her food may actually be a useful developmental stage. Exercises to help chewing, swallowing and mouth control may also be done at times other than mealtimes, when the child is not hungry and can attend to movements rather than food.

Teeth should be cleaned after every meal, with a small, soft brush, and regular visits should be made to a dentist. People with C.P. usually are not able to move their tongues and lips against their teeth and gums in the way other people do, cleaning and massaging their teeth and gums. So they are in more danger of tooth and gum infections.

* *Dressing*

Most children with C.P. can learn to dress themselves.

The child with C.P. needs to be in a secure position where she is not afraid to fall when moving to put on clothes. Some children will need to learn to dress themselves when lying on the floor, but most can learn to dress while sitting on a chair at a low table, next to another solid chair or the wall for support.

To put on upper clothes, it may be easier if the child sits at a table with the clothes on the table, the bottom edge nearest the child, the neck furthest away. To put on lower clothes, the child has to stand to pull the garment up, so she may need another chair, or a bar on the wall to pull herself up.

The child with one side more affected should use the affected hand to hold clothes and for support, while using the stronger hand for more difficult work. Clothes should be put on the more affected side first. Then the more capable limb has the harder task of fitting itself in.

Shoes should be comfortable and easily fitting, even if the child does not yet walk.

Some children with cerebral palsy have little idea of how their body fits together. They may have special difficulty in putting on their clothes. To increase awareness, the teacher or other person concerned should talk about the parts of the body while they do movement exercises, physical education exercises and while they are massaged, washed and being dressed. Copying a teacher's movements while watching himself in a mirror is another activity that will help develop the child's awareness of his body. All the types of physical activity described in Chapter 14 will also help.

- *Toilet*

A person with C.P. will feel much more independent if he can handle his own toilet needs, in privacy like anyone else.

Many people with C.P. need only a fixed bar to hold on to, and something to grip to pull themselves up and down. (A heavy chair placed in front of the toilet may serve this purpose).

He may need a supporting seat over the toilet, to sit securely. If he normally uses a corner chair, make one with a hole in it for toilet use. If he is small and normally uses a pot, the pot may be put in a box or frame for stability.

Trousers/shalwar may have elastic instead of zip or buttons, so that he can take them up and down easily by himself.

Many children with C.P. are constipated (a long time between each occasion when they pass solid in the toilet). They may find it hard to push with their stomach muscles. Their diet should be changed, giving more vegetables, fruit and brown flour. It may help if they squat, or sit on a low toilet seat, with their knees well bent to make pushing easier. Firm massage of the stomach should help. Also exercises for the stomach muscles: lying on the back bending each leg in turn then stretching the leg up as high as it will go.

A boy who is severely disabled and cannot get to the toilet may use a plastic bottle for passing urine. His brother or another man should show him how to use it.

(c) Communication

(*See Chapters 5-9 on speech, language and communication*).

The child with C.P. should learn some means of communication as well as speech, so that she does not get frustrated by the slower progress she may make towards speech. A picture/symbol language may be very helpful. Gestures can be used if hand movements are controlled. This may also encourage hand movements, if the child does not otherwise use her hands.

Speech uses the same muscles as eating, together with those for breathing. Eating correctly is one of the best exercises in preparing for speech: it exercises the tongue, lips and jaw. Blowing and tongue exercises are described in Chapter 8).

When a pupil is learning to speak, she may take a long time to pronounce each word. Encourage her to try. Do not correct her too often or she will be unhappy. It may be easier for the child if she uses her picture/symbol cards as an aid to her speech, to help others understand what she says.
Some people find mouth control harder if their head is tilted upwards - the teacher should sit or squat down at the same level as the pupil so that conversation can take place without turning the head upwards.

Ice can reduce spasticity for a few seconds,- a pupil can be helped by licking a piece of ice (or ice lolly) before speaking. Some people find it very hard to speak at the same time as using their hands. Pupils with this problem should practise clasping their hands or reaching out, at the same time as talking. It may help if they breathe deeply at the same time as large arm movements, before talking or doing speech exercises.

Encourage the pupil to make sounds. Praise and reward her if she joins in singing. The smaller child may make more sounds during certain activities, or maybe in the toilet. Be sure to reward this by paying attention and making sounds in turn.

Writing and typing: many cerebral palsied people, especially those who are athetoid, find it easier to learn to type than to write by hand. Some cannot manage an ordinary typewriter, but can use an electric one. Many expensive gadgets have been invented to help severely disabled people to communicate. In due course, with more development and mass production, some of these gadgets may be sold at a much lower cost.

Some children who can learn to write by hand, find it harder to write on lined paper. Spastic children often break pencil points. They may write more easily on an adjustable desk where the paper inclines up or down.

5) INTELLIGENCE OF PEOPLE WITH C.P.

Studies in Western countries show that more than half the people with C.P. are of normal (or above normal) intelligence. Yet it may easily happen that such a person's intelligence is under-estimated. When someone cannot move and cannot speak and has few chances to learn about his environment, it is not easy to assess his potential ability.

The teacher should always look out for signs of interest and ability in her C.P. pupils, as indeed in all her pupils. As stated before, athetoids are usually of normal or above normal intelligence, but they are often deaf (able to hear loud noises or deep sounds but unable to recognise the words of speech). This adds to their problems and makes other people more likely to under-estimate their intelligence.

6) PERCEPTUAL PROBLEMS

Many people with spastic and ataxic C.P. have perceptual problem. (Those who are athetoid do not usually have them). The difficulties with perception may be so severe that the person bumps into objects and cannot recognise the openings in clothes when trying to get dressed. They are helped by exercises such as shape sorting, jigsaws, building wth bricks and the exercises given in Chapter 10 on reading and writing. (But some of these exercises will be very hard. Tracing may be "the most spastic-making exercise possible".)

Those with perceptual problems often have difficulty through being easily distracted from their work. When doing a task that requires their full attention, it may help if they sit in a corner of the classroom facing away from any distraction. However, they should normally sit amongst the other pupils in order not to become 'different'.

Some children with cerebral palsy have 'visual field defects'. This means they have a large 'blind spot' area where they do not see unless they move their eyes. To find out if this is so, place four bricks on the table in front of the child, so that one brick is at each of the four corners of the area the child sees. Ask her to pick them up. Does she miss one ? If so, practise this sort of activity until she learns the habit of moving her eyes to see everything in front of her.

7) GENERAL TEACHING POINTS

Draw a pupil's attention to those parts of his body that do not work properly, through games involving naming different parts or moving them. Play games such as this: blindfold the child, then touch different parts of his body and he has to say where he was touched - with something cold or hot, dry or wet. Without this experience, the pupil's ideas of his own body may be false, especially if he does not have much feeling in some parts. This is very true of hemiplegic children, who may ignore their affected arm until it becomes more and more useless, even stunting its growth.

The pupil should be encouraged to do things for herself, but if she is unsuccessful do not let her become discouraged. It may be easier for her to work at a table where the equipment she is using is placed on a surface that will not let it slip; or if it is stuck to the table with sticking plaster, or if the table has a rim around it.

Children like to play ball and it helps coordination and perception. Athetoid and ataxic pupils should find a heavier ball easier to handle. Hemiplegic children should find a larger ball easier, and this encourages use of both hands. Spastic children will do best with a smaller ball. Spastic C.P. children may find it hard to let go of the ball. It may help to say aloud what to do: "Let the ball go - NOW".

A child with severe C.P. in a mixed class with other pupils may draw undesirable attention from visitors to the school. Some visitors find it hard to resist the impulse to give the C.P. child some money or to express pity. If this often happens, it is best if the child sits somewhere in the classroom where she does not easily come to the visitors' attention.

EQUIPMENT

The purpose of equipment, in the special school, is to aid and assist the pupils in learning.

Equipment is needed (a) that will help pupils to learn certain skills, and (b) that will be generally stimulating, e.g. encouraging a child to think or to talk, or just to get enjoyably interested and imaginatively occupied.

The teacher should decide what she wants the children to learn (each week or month), and then find, make, borrow or buy equipment that will help the children to learn what has been decided, taking into account their interests and needs. That is the correct priority: Learning target, then equipment. She should not fall into the habit of thinking "Oh, we have this equipment, so that is what the children must do".

Throughout the book, there has been reference to the sort of materials needed to teach different skills, which can be found in each relevant section. Most equipment needed for these skills is not expensive. It is easily available or can be made by the teacher or by a bazaar carpenter. (It is useful if a teacher can learn to use woodwork tools, and make more of the equipment in school.)

Finance for school equipment should take into account the need for a constant supply of card, coloured paper, gum, marker pens, crayons etc., to make learning aids. Teachers and school management should both understand that mentally retarded pupils are heavy users of equipment, and most items will have a short life. A regular budget will be needed for making or buying equipment. (Equipment that is kept locked up and is brought out only to impress visitors is, in effect, useless.)

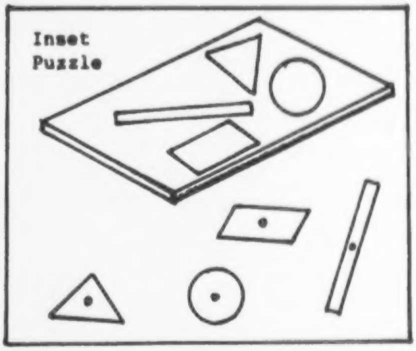
Equipment should be as attractive as possible. For many purposes it is better to have a variety of inexpensive items rather than a few expensive ones. For other purposes, safety and strong construction are more important.

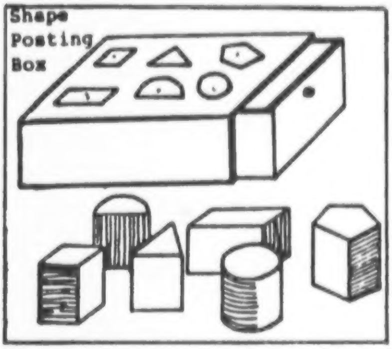
Materials for developing motor control, for example, need to be strongly made as they will be handled heavily. Threading frames need to be secure, so that there are no sharp points. Scissors for normal classroom use should usually have round blunt edges. If only pointed scissors are available, they may have their ends broken off and filed down smoothly. Beads to teach threading skills should be made of strong glass, plastic or wood that will not splinter and cut when broken.

Safety must be a factor in toys such as dolls. They should have no pins. Their eyes must be sewn rather than pinned, as the children may pull them out. Cheap toy cars often have dangerous sharp edges - it is better to have a smaller number of better quality.

Tricycles are better value if well made; cheap ones soon fall apart. Playground apparatus must be strongly made, for safety.

Material such as inset boards, whether made in school or in the bazar, should be made carefully so that pieces fit easily and correctly. For example, if a shape posting box has a square hole, but the square piece only fits into it if held in one out of four possible ways, the pupil will become frustrated and will not learn that a square piece fits into the square hole.





* *Care and maintenance:* the teacher is responsible for keeping her equipment in good condition. However, equipment is meant to be used by the children. Mentally handicapped children will not learn anything just from watching the teacher showing the use of equipment; the children must use it themselves, which means that they may spoil it, break it, lose pieces, etc. The teacher should however do her best to repair, repaint, find missing pieces, check children when they go home to see what they are taking, and request parents' cooperation in returning material taken home.

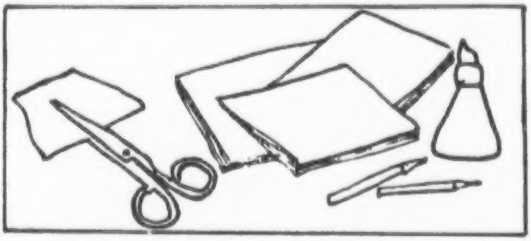
* The teacher should be ready to use 'ordinary' objects and even 'junk' in teaching.

Everyday things. Often it is good to use the sort of everyday household things that the child sees and handles at home. When teaching the child to compare sizes, sometimes use ordinary cooking pots, rather than wooden blocks or plastic objects which are not used in real life. Fruit and vegetables can be bought, children can learn to recognise by touch or by taste or smell when blindfolded. They can be cut up to make 'jigsaw puzzles', size compared, colour described, counted etc. Collections of leaves, flowers, pebbles, can be made, children can talk about them, make pictures with them, compare colour, size, texture, smell.

Good use can be made of empty shampoo bottles, boxes and cartons. A doll's house can be made from a large cardboard carton or wooden packing case. *Safety Note*: plastic bags are dangerous if a child pulls one over his head, and foam rubber or polystyrene packing materials are dangerous if eaten - they should be covered with cloth before being used in a class with any pupils who are likely to eat them.

The teacher should also regard classroom space as 'equipment'. There should be things on the wall to look at and to touch, and 'mobiles' hung by strong thread or wire from the ceiling. These things should be attractively displayed to catch the child's attention. They shoud be changed regularly, after 2 or 3 weeks. The pupils should themselves make as much as possible of the material on the walls of their classroom.

A great deal of the basic equipment needed to provide learning experiences for mentally handicapped children is available in every town, or can easily be made locally.



Some of the necessary equipment includes:

Paper, cardboard, glue, brushes, scissors (blunt ended; or if only sharp scissors are available, they can have the points broken off and filed down smooth), coloured pencils, crayons, marker pens, staplers, non-toxic paints to be used by children doing art work, and by teachers making other equipment.

Pieces of cloth, wool, various needles, different sized buttons, small beads etc. for sewing.
Clothes for dressing up games, old shirts to protect clothes during painting or other messy activities.

Cooking implements, pots, pans, plastic plates and mugs.
Oddments of wood, hammers, nails, small saws, vice or clamp; some gardening tools, materials for craft work.

Weighing scales, measuring tapes and rulers, wallclock.
Jigsaws and other puzzles; beads and string for threading, marbles.

Flour and salt to make dough for modelling by younger children. (One kilo of salt to two kilos of flour prevents the dough going mouldy. Water should be added to reach the right consistency.) Clay is more suitable for older children.

Picture books, pictures cut from magazines, exercise books.
Wooden blocks, plastic blocks (both large and small) and other construction toys.
Bean bags, sand bags, ninepins. Cricket bat, tennis or badminton set, skipping ropes.
Dolls and soft toys of various sizes (not fixed with pins).
Toy cars, trains, animals, soldiers.
Balls of various sizes - footballs, plastic balls, tennis balls.

Large bowls of sand and water (to be used in a place where mess can be made and cleared without too much trouble.) Different size and shape plastic containers, tin cans without sharp edges, small pieces of hosepipe, plastic tubing and beakers for water experiments.

Musical instruments - tamborines, mouth organ, drum etc. (including tabla and harmonium if a teacher can play them). Improvised instruments may also be used such as degchee (cooking pot) and spoon to bang on it; beans to shake in a plastic container; piece of twangy wire nailed onto a wooden base, with movable bridge etc.

Tape recorder for music and speech work, with music cassettes and blank cassettes.
Bicycles, tricycles.
Large and small mirrors.

* *Equipment to make:*

The teacher should have plenty of paper and card to make games and puzzles. These will last longer if stuck onto pieces of plywood or other strong material. Plastic lamination is also available now in some towns, which will preserve card games.

Other equipment, such as outdoor climbing frames, swings, wall bars etc. may be made by local craftsmen or by technical college students, by a teacher in his spare time, or even by older pupils under his supervision. Inset boards and jigsaw puzzles may also be obtained in these ways.

As noted above, care must be taken so that pieces fit easily, whenever the correct piece is put into the right hole.

Equipment should be attractive and fun to use, it should be kept clean and repaired and repainted as necessary.

Ideas for equipment may be found in catalogues from overseas manufacturers. Something similar can be made locally.

Outdoor exercise apparatus may include climbing frame, swings, slide, seesaws, paddling pool, rope ladders. For safety, all these items should be made strong enough to take adult weight and heavy use. The size, height etc. should be adjusted for the age of the pupils and their varying movement skills.

Equipment from overseas

If a reasonable amount (e.g. $500 or more) of foreign currency is available, a variety of attractive, durable materials may be selected from catalogues produced by the suppliers of educational equipment. Addresses of some British suppliers of a good range of equipment:

E.J. Arnold & Son Ltd, Butterly St, Leeds LS10 1AX
Four To Eight, Medway House, St. Mary's Mills, Evelyn Drive,
  Leicester LE3 2BT
James Galt & Co Ltd, Brookfield Rd, Cheadle, Cheshire SK8 2PN
Learning Development Aids, Park Works, Norwich Road, Wisbech,
  Cambs. PE13 2AX

Other addresses and information about equipment availablity may be obtained from the Commercial Section of the Embassies of Western nations. British Council Libraries also stock some catalogues. Some Embassies may consider a request for a donation of equipment to a well-run school for handicapped children. It is the sort of non-political activity in which the wives of diplomats may get involved.

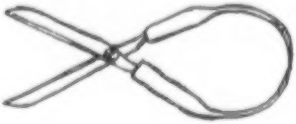
If comparatively smaller sums are available, e.g. with people making a short visit overseas, the following items are useful to bring:

1) plastic construction sets e.g. LEGO, which is a multipurpose aid to learning. Children learn about colour, shape, size, and use their imagination in designing and building. There are some cheaper, locally made imitations, but often they do not fit together well, and they break more easily. At least one large Lego set per class is useful. Younger children, and those with weak skills of handling objects, should also use the larger size DUPLO bricks.

2) Thick (easily held) non-toxic crayons.

3) Brightly coloured, non-toxic powder or poster paints.

4) Special scissors with a spring handle that makes them easier to learn to use, and easier for physically disabled pupils.



5) Clear adhesive "Fablon" which can be stuck over card and board games to make them last for years instead of days. (This may be available also in some cities of Pakistan, and there are also some plastic lamination machines now).

6) Mats made of non-slip materials e.g. 'Dycem', for children with cerebral palsy, to place under their work or under their plate at meal-times to keep it steady. Suction pads may also be used for this. Special handles may be available that can be fixed to tools or implements (pencils, spoons etc.) to make them easier to grip. These things can be obtained from special suppliers of equipment for disabled people or from the Spastic Society, 12 Park Crescent, London W1N 4EA, UK.

In Pakistan, equipment imported for the rehabilitation of disabled or mentally retarded persons, by a registered charitable institution, is exempt from customs duty and sales tax according to SRO 332(I)/78 dated 28-3-1978 and amended on 6-1-1979. Many countries have a similar exemption.

Unfortunately, much of the equipment used with mentally retarded children looks like 'toys'. 'Toys' usually have a high import duty rating. So it is useful to prepare some documents beforehand, to prove the existence and charitable nature of the special school. Customs officers will also want a detailed list of any equipment that is being imported. They usually require a written undertaking that the equipment will not be sold or used for any other purpose than the education of handicapped children.

USEFUL READING

There are several thousand books in print on various aspects of mental handicap and special education. Several hundred more are published every year, and other go out of print. Some are very theoretical or medically oriented, or concerned with social conditions in Western economic contexts. The books listed below have a practical emphasis that can be applied in any special school. These books may be ordered through bookshops or direct from the publishers, subject to foreign exchange rules. In cities served by a British Council Library it is possible to request that some of these books be obtained by the library for loan.

Many of the books are available in both hardback and paperback. Paperbacks would cost in the range Rs.150 to Rs.700 each (1990). The whole set of books, making a very valuable reference library, would cost less than Rs.20,000.

It is to be hoped that many more books will soon be produced by special teachers and their colleagues writing in their own countries and cultural contexts, replacing all the books on this list.

The first three books are an introduction to how children develop:

Children's Developmental Progress: From Birth to Five Years. Mary Sheridan. 1975 74pp NFER-Nelson.

Spontaneous Play in Early Childhood Mary Sheridan 1977 87pp NFER-Nelson.

Sheridan's books give detailed descriptions of early child development, with many line drawings.

Child Development: a First Course Sylva and Lunt. 1982 261pp Blackwell.
A clearly written account of the major theories of child development.

The following four books give a general introduction to methods of helping children and older people with mental handicap to learn.

The Next Step On The Ladder G.Simon 1986 (4th Edn) 144pp BIMH.
Very helpful for the teacher of more severely or profoundly handicapped children, with sections on non-verbal communication, feeding, dressing etc. Many drawings.

Helping Your Handicapped Baby C.Cunningham, P.Sloper 1978 335pp Souvenir Press.
This gives methods of teaching and detailed teaching programs for young mentally handicapped children. Has a very detailed checklist (birth to mental age 2 years)

Starting Off C.Kiernan, R.Jordan, C.Saunders 1978 335pp Souvenir Press.
Methods of teaching and teaching programs for children with a low developmental age. Gives details of alternative communication systems.

Getting Through To Your Handicapped Child E.Newson T.Hipgrave 1982 134pp C.U.P.
Gives a clear explanation of teaching methods, things to do and handling problems.

The following books give information about some important aspects of teaching children/people with mental handicap, written in non-technical language.

Let Me Play D.Jeffrey, R. McConkey 1976 252pp Souvenir Press.
Has a series of developmental charts followed by games and easily made equipment to facilitate development

Let's Talk Roy McConkey, Penny Price 1986, Souvenir Press.
An important book, giving practical details on teaching communication skills. Gives explanations and lots of activities. Originally written for parents (in an English speaking context) it is very useful for teachers.

Living Skills For Mentally Handicapped People C.Peck and Chia Swee Hong
Written by two occupational therapists, this is a practical manual on teaching daily living skills to people with mental handicap of all ages.

Problem Behaviour in People with Severe Learning Difficulties: A Practical Guide to a Constructional Approach Zarkowski and Clements 1987 180pp Croom Helm
A practical book on changing and preventing problem behaviour, with many examples.

Working with Parents: Practical Guide for Teachers and Therapists Roy McConkey 1986 320pp Croom Helm.
An important book on ways of working with parents, to maximise their children's progress. Includes useful sections on public speaking and organising courses.

Art Activities for the Handicapped S.Atack 1985 Souvenir Press.

Drama for Mentally Handicapped Children A.McClintock 1984 Souvenir Press.

Handling the Young Cerebral Palsied Child at Home N. Finnie 1974 320pp Heinemann Medical.

Has suggestions for dressing, bathing, feeding, speech as well as recommending positions for sitting, sleeping, carrying with many drawings. Although written with the young child in mind, most of the material applies to children of all ages.

Down's Syndrome C.Cunningham New edn 1989 Souvenir Press

Steps to Independence Practical Guidance on Teaching People with Mental and Sensory Handicaps A.Best 1987 104pp BIMH.

Very practical book on teaching children with visual impairment as well as mental handicap. Expects the reader to have read 'The Next Step on the Ladder' (above).

Education of Deaf Children and Young People The Centre for Total Communication, Copenhagen 1987 84pp UNESCO Special Education Program.

An informative book about deaf children, having a balanced approach between the conflicting theories in this field.

The following two books are rather more technical in style.

The Education of Children with Severe Learning Difficulties (Eds.) J.Coupe and J.Porter 1986 416pp Croom Helm

Discusses the theoretical basis of many aspects of special education, using academic vocabulary.

Communication Before Speech J.Coupe and J.Goldbart 1988 129pp Croom Helm.

A theoretical book on teaching communication skills to severely and profoundly handicapped children.

For more information on treating children with physical disabilities the following two books are recommended:

Disabled Village Children D. Werner 1987 654pp Hesperian Foundation.
This gives an enormous amount of information about different physical disabilities and their treatment. In simple English and with many illustrations. Useful for teachers, physiotherapists, health workers. Low cost, superb value.

Treatment of Cerebral Palsy and Motor Delay S. Levitt 1982 269pp Blackwell.
Details methods of physiotherapy treatment for different types and degrees of cerebral palsy, with many illustrations. A reference book for physiotherapists.

The following two books introduce the professional work of the Speech Therapist

Speech Therapy. Principles and Practice. Betty Byers Brown (1981) Churchill Livingstone.

Speech Therapy: a Clinical Companion J.Warner, B.Brown, E.McCartney (eds) (1988) 168pp M.U.P.

"Impact" Course Packages: *workshop packages from M.U.P. containing course books, trainers manuals and videocassettes (one can buy the course manuals alone). They include:*

The Education of People with Profound and Multiple Handicap J.Sebba 1988, 160pp, M.U.P.

Foundations of Communication and Language C. Kiernan, B.Reid, J.Goldbart 1987 180pp M.U.P.

An Introduction to Counselling Skills for Special Educational Needs B.Mallon 1987 50pp M.U.P.

Books on Integration: Western books on integration of children with learning difficulties into normal schools assume that the children are being integrated into schools where it is normal for individual children to work at their own pace of learning, at tasks appropriate to each individual's level of development. Children are included in classes where the pupils are working in small groups or individually according to their abilities. Practical information about including children with learning difficulties in such an environment does not readily transfer to countries where the school system is more traditional, with children sitting at desks, spending their days watching and listening to the teacher and regularly taking exams.

A Series of books on "Special Needs in Ordinary Schools" General Editor P. Mittler, Cassell Educational Ltd., covers most aspects of integration.

Meeting Special Needs in Ordinary Schools S. Hegarty 1987 224pp.
This is a general, theoretical introduction to integration.

The series includes books on each of the major disabilities, and books on teaching aspects of the curriculum in both primary and secondary schools.

Publishers Catalogues
Since new books are always appearing, and others going out of print, while prices rise, it is often worth asking publishers for their catalogue of disability, handicap, special education or special needs publications. Some British addresses are given below, covering the books listed above. Catalogues and reference books showing 'books in print' may also be found in British Council libraries and those of other countries. Local bookshops should be able to help with publishing information for their own country.

BIMH (British Institute of Mental Handicap) Publications, Foley Industrial Park, Stourport Rd, Kidderminster, Worcs. DY11 7QG, UK.
Blackwell Scientific Publications, Osney Mead, Oxford OX2 0EL, UK.
Cassell Educational, Artillery House, Artillery Row, London SW1P 1RT, UK
CUP (Cambridge University Press) The Edinburgh Building, Shaftesbury Rd, Cambridge CB2 2RU, UK.
Churchill Livingstone, Robert Stevenson House, 1-3 Baxter's Place, Leith Walk, Edinburgh EH1 3AF, UK.
Croom Helm (Routledge) 11 New Fetter Lane, London EC4P 4EE, UK.
Heinemann Professional, Halley Court, Jordan Hill, Oxford OX2 8EJ, UK.
MUP (Manchester University Press), Oxford Road, M13 9PL, UK.
NFER (National Foundation for Educational Research)-Nelson Publ. Darville House, 2 Oxford Rd East, Windsor SL4 1DF, UK.
Souvenir Press 43 Great Russell St, London WC1B 3PA, UK. (Pakistan rep: Shams Qureshi, 6 Krishna Mansions, Inverarity Rd, Karachi 3).

INDEX

The index tries to give significant words and general themes - so a particular word listed below may not always appear on the page given, but something on that page will be of the same general theme.

The following appear so often in the text that they are not indexed: *mental handicap/retardation, teacher/teaching, child/pupil, learn/learning/understanding.*

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